

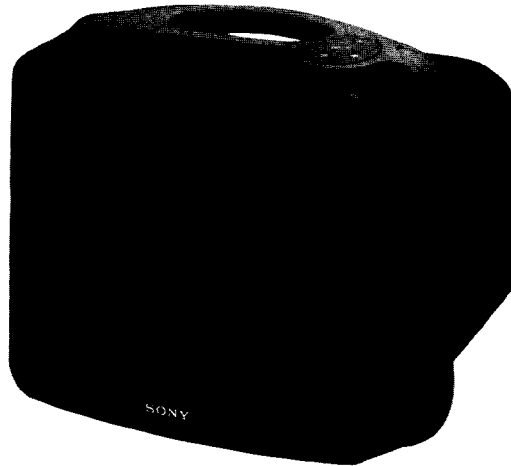
KV-M1120

RM-828

SERVICE MANUAL

AEP Model

Chassis No. SCC-F70A-A



EE-1A CHASSIS

MODELS OF THE SAME SERIES

MODELS OF THE SAME SERIES	
KV-M1120	

[KV-M1120]

Television system.
Colour system.
Channel coverage.

B/G/H/I/L
PAL, SECAM, NTSC3.58, NTSC4.43
[B/G/H]. VHF : E2-E12 UHF: E21-E69
ITA VHF A-H2 (C), UHF 21-69
CATV (1) : S1-S41
CATV (2) : S01-S05, M1-M10, U1-U10
[I]. VHF : A-J, UHF B21-B69
CATV : S1-S41, S01-S05
[L]. VHF : F2-F10, UHF: F21-F69
CATV : S01-S44

Picture tube.

Trinitron tube.
Approx. 28 cm (11 inches)
(Approx. 26 cm picture measured diagonally)
90°-degree deflection.

Inputs.

Y/C input : S connector.
2 Video input : Phono jack.
Audio input : Phono jack.

Outputs.

(R,G,B) 1 21 pin Euro connector.
AV 21-pin connector: CENELEC standard
Headphone jack : minijack

SPECIFICATIONS

Sound Output. 2.5W (Music Power)
Power Requirement. 220-240V AC
12-24V DC
Power consumption. 55 Wh
Dimensions. Approx 296x261x329mm (w/h/d)
Weight. Approx. 8.5 kg
Supplied accessories. RM-828 Remote Commander (1)
AA size R6 batteries (2)
Telescopic antenna (1)
DC Power cord (1)
AC Power cord (1)

[RM-828]

Remote control system infrared control.
Power requirements. 3V dc
2 batteries IEC designation
R6 (size AA)
Dimensions. Approx. 55 x 183 x 18mm (w/h/d)
Weight. Approx. 130g (including batteries).

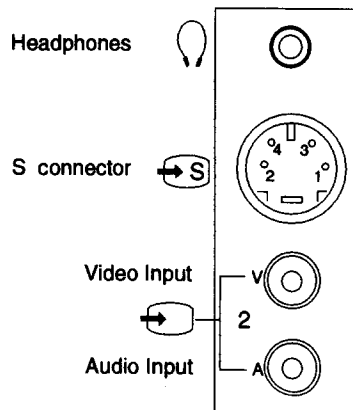
Design and specifications are subject to change without notice.



TRINITRON® COLOR TV

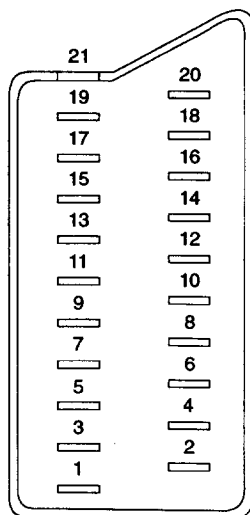
SONY®

Connector Configuration



4 pin connector [S]

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3db 75ohm, positive Sync 0.3V
4	C (S signal) input	0.3V ± 3db 75ohm positive



21 pin connector (1.)

Pin No	1	Signal	Signal level
1	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : less than 1Kohm. *
2	○	Audio inout B (right)	Standard level : 0.5Vrms Input impedance : More than 10Kohm. *
3	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : less than 1Kohm. *
4	○	Ground (audio)	
5	○	Ground (blue)	
6	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : more than 10Kohms. *
7	○	Blue input	0.7V +/- 3dB 75ohms positive
8	○	Function select (AV control)	High state (9.5 - 12 V) : Part mode Low state (0 - 2 V) : TV mode Input impedance : more than 10Kohms Input capacitance : Less than 2nF
9	○	Ground (green)	
10	○	Open	
11	○	Green	Green signal : 0.7V +/- 3dB 75ohms, positive
12	○	Open	
13	○	Ground (red)	
14	○	Ground (blanking)	
15	○	Red input	0.7V +/- 3dB. 75ohms. positive
	—	(S signal) chroma input	0.3V +/- 3dB. 75ohms. positive
16	○	Blanking input (Ys signal)	High state (1 - 3 V) Low state (0 - 0.4 V) Input impedance : 75ohms
17	○	Ground (video output)	
18	○	Ground (video input)	
19	○	Video output	1V +/- 3dB. 75ohms. positive Sync : 0.3V (-3. +10dB)
20	○	Video input	1V +/- 3dB. 75ohms. positive Sync : 0.3V (-3. +10dB)
	—	Video Input /Y (S signal)	1V +/- 3dB. 75ohms. positive Sync : 0.3V (-3. +10dB)
21	○	Common ground (plug shield)	


○ connected

* at 20Hz - 20kHz

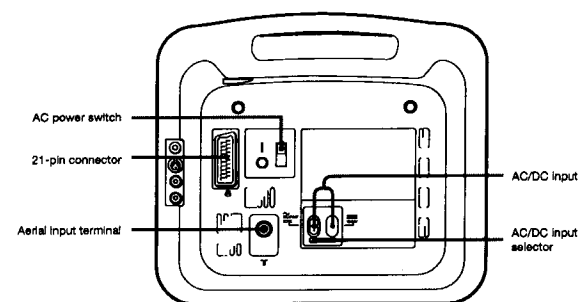
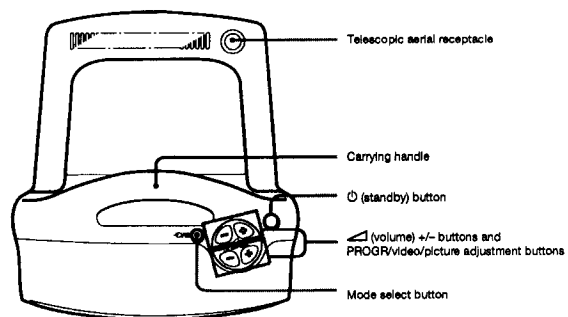
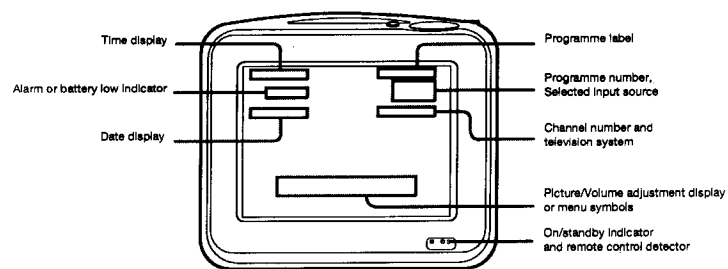
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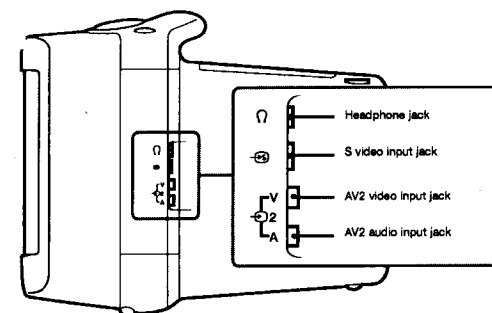
SAFETY RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED WITH  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

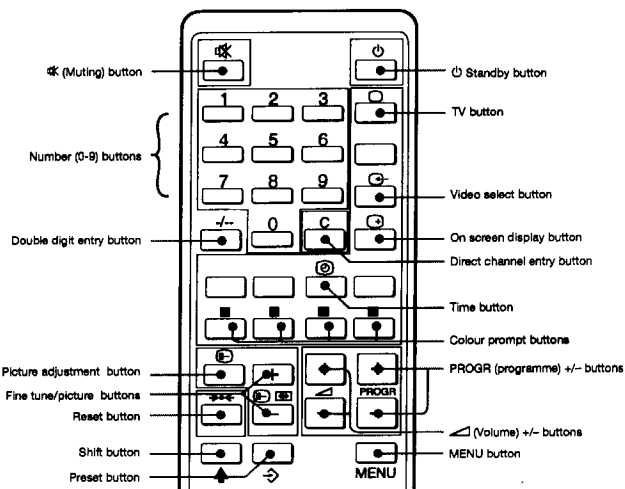
1-1 Identifying the Parts



Note: The symbols marked on the side of the TV correspond to the jacks that appear on the recessed rear of the TV.



Identifying the Parts



1 Push to open the lid (rear of the Remote Commander.)



2 Insert two size AA (R6) batteries to correct polarity.



3 Replace the lid.



Notes

- With normal operation, batteries will last up to half a year. If the Remote Commander does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries when you will not be using the Remote Commander for a fairly long time.
- Be sure that there are no obstructions between the Remote Commander and the TV.
- If you use a Remote Commander that is not recommended to operate this TV, or if you use the supplied Remote Commander to operate other equipment, the equipment may not operate properly.

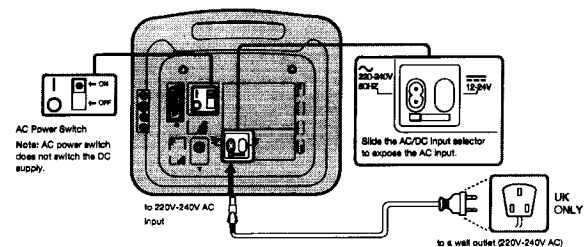
WARNING

Batteries may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

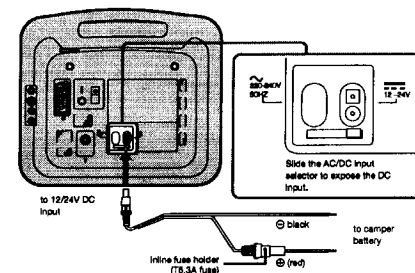
Chapter 1 – Preparing for Use

1-2 Setting up Your TV

To watch your TV at home, attach the supplied AC cord to the rear of the TV as shown below.



You can use the power from your mobile home battery by attaching the supplied DC power cord to the battery using appropriate battery clips (not supplied). There is no separate switch on the TV for DC supply.



Caution

- Do not connect the DC power to AC input or the AC power to the DC input.
- If you connect the DC power cord to the AC power outlet the DC power cord fuse (7.5A) will burn out. Replace fuse only with the same type.

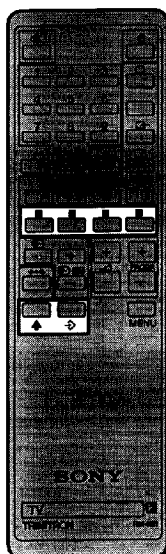
Low Battery Power Warning

When the battery power falls below 12V, the TV displays a warning and automatically switches off after the warning has been displayed for 30 seconds. Disconnect the TV and recharge the battery before switching the TV on again.

Notes

- For car use, the TV is designed to be used on negative ground, 12-24V DC.
- Use the supplied DC power cord manufactured by Sony. The polarity of other manufacturers' cords may be different.
- When you are not using the TV, disconnect the DC power cord. If you do not, battery power will be lost, even in standby mode.
- In hot temperatures, do not leave the TV in the car for a long time.

1-3 Presetting Channels



As your TV is likely to be used in locations away from home, two tuning methods have been provided:

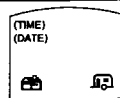
- **Tuning home programmes**
For use at home you can preset up to 80 channels into programme position numbers (00-59). These channels are stored indefinitely in the TV's memory.
- **Tuning away programmes**
For use away from home a simplified auto-tuning function is provided with which you can preset up to 40 channels (00-39). These channels are stored in a temporary memory in the TV, and will be retained for approximately 4 days if the TV is not powered up.

Tuning "HOME" Programmes

- 1 If using AC (household supply) ensure AC switch is on.
If the TV is in standby mode, turn on the TV by pressing one of the following buttons:

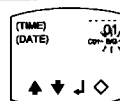
On TV	On Remote Commander
PROGR +/- On-Set button	PROGR +/-
Standby On-Set button	TV button
	Number (0-9) button

- 2 Press \rightarrow on the Remote Commander while pressing \blacktriangle . The tuning menu appears.



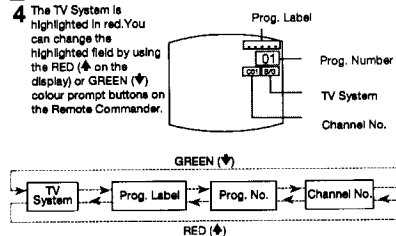
- 3 Press RED colour prompt button to select HOME tuning mode.

A menu screen as shown will appear.

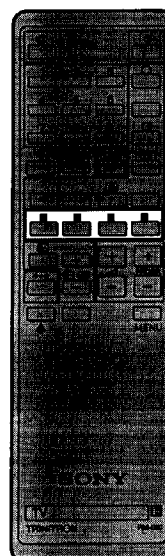


HOME TUNING MENU

- 4 The TV System is highlighted in red. You can change the highlighted field by using the RED (\blacktriangle) on the display) or GREEN (\blacktriangledown) colour prompt buttons on the Remote Commander.



Presetting Channels

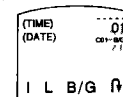


To go back to the normal TV picture
Press \square or press \blacktriangle and \rightarrow simultaneously.

Selecting the Television System

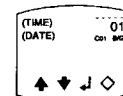
- 1 When the TV System is highlighted in red, press YELLOW colour prompt button (\blacktriangle) to select the TV System menu.

Before step 2 please refer to table at bottom of this page.



- 2 Press RED colour prompt button (I) to select System I.
Press GREEN colour prompt button (L) to select System L.
Press YELLOW colour prompt button (B/G) to select System B/G.
When the system has been selected, press BLUE colour prompt button (H).

- 3 Press BLUE colour prompt button (\blacktriangledown) again to store the television system.

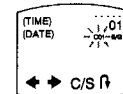


Presetting Channels Automatically

- 1 Press RED (\blacktriangle on the display) or GREEN (\blacktriangledown) colour prompt buttons to highlight the Channel Number.

- 2 Press YELLOW colour prompt button (\blacktriangle) to select the Channel Number menu.

Press RED (\blacktriangle backward) or GREEN (\blacktriangledown forward) colour prompt buttons to search for channels backwards or forwards respectively.



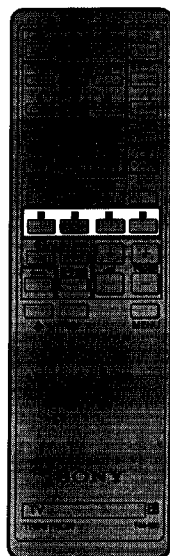
TV SYSTEM

This table indicates the tuning system used by the listed countries.

System	Austria	Monaco (*)
B/G	Belgium (B/H)	Netherlands
	Denmark	Norway
	Finland	Portugal
	Germany	Spain
	Greece	Sweden
	Iceland	Switzerland
	Italy	Yugoslavia (B/H)
	Luxembourg (*)	
System L	France (*)	
	Monaco (*)	
	Luxembourg	
System I	Ireland	
	United Kingdom	

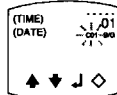
(*) Luxembourg and Monaco can receive both Systems B/G and L.

Note
For direct channel entry please refer to Presetting Channels Directly on page 12.

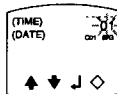


To go back to the normal TV picture
Press or press and simultaneously.

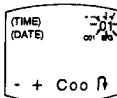
- 3 When the required channel has been found, press BLUE colour prompt button () to return to the main HOME tuning menu.



- 4 Press RED () on the display or GREEN () colour prompt buttons to highlight the Programme Number field in which the channel is to be stored.

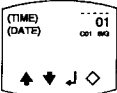


- 5 Press YELLOW colour prompt button () to select the Programme Number menu.



- 6 Press RED (-) or GREEN (+) colour prompt buttons to decrement/increment the programme number respectively. Alternatively, you can enter a new programme number by using the number buttons directly. (When using the number buttons to enter a programme number less than 10, it is necessary to first enter a "0" digit e.g. 08). The YELLOW colour prompt button (Coo) can be used to clear the programme.

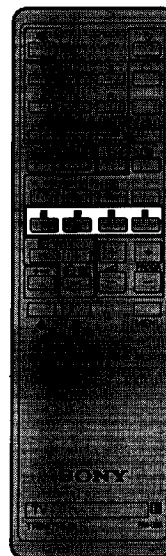
- 7 After setting the required programme number, press BLUE colour prompt button () to return to the main HOME tuning menu.



- 8 Press BLUE colour prompt button () again to store.

- 9 Repeat steps 1 - 8 for other channels.

Presetting Channels



To go back to the normal TV picture
Press or press and simultaneously.

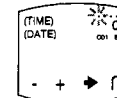
The procedure for presetting channels directly is the same as for presetting channels automatically, but with the following exception. In the channel number menu press the number buttons to enter the channels directly. You can also use the YELLOW colour prompt button (C/S) to toggle between "C-" and "S-" type channels (off air and cable channels).

Skipping Programmes

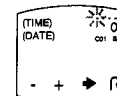
You can skip over unprogrammed channels by pressing PROGR +/- during normal TV mode.

You can name a channel to be stored using five characters (letters or numbers). Using this function you can easily identify which channel you are watching.

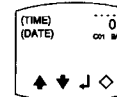
- 1 Using the Home tuning menu Press RED () on the display or GREEN () colour prompt button to highlight the Programme Identifier field and then press YELLOW colour prompt button () to select it. The first character position in the Programme Identifier field will flash, indicating that this character can be changed.



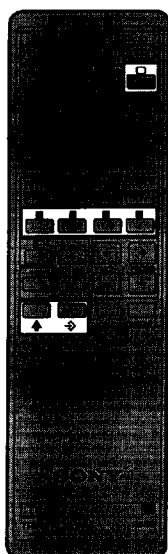
- 2 Press RED (-) or GREEN (+) colour prompt buttons to step down/up respectively through the available characters. After setting the first character position correctly, press YELLOW colour prompt button () to step on to the next character position to be changed. Repeat the above procedure until all five positions have been correctly set. (Note: when a "-" is shown in a character position, this will be displayed as a space "-" in normal TV mode).



- 3 After setting the programme identifier, press BLUE colour prompt button () to return to the main HOME tuning menu.



- 4 Press BLUE () to store the new programme identifier.



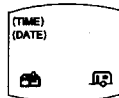
Note
Channel information stored in AWAY mode is held in temporary memory and will be retained for approximately 4 days if the power cord is disconnected.

Programme Identifiers are not available for AWAY channels.

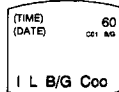
To go back to the normal TV picture
Press \square or press \blacktriangle and \blacktriangleright simultaneously.

Tuning "AWAY" Programmes

- 1 While pressing the \blacktriangle (shift) button, press \blacktriangleright to enter the tuning menu.



- 2 Press GREEN colour prompt button (B/G) to select AWAY tuning mode.



A menu screen as shown will appear. You can programme the channels into the programme numbers 60-99. The programme number displayed will be the first unprogrammed position available in the range 60-99.

- 3 Press RED (I), GREEN (L) or YELLOW (B/G) colour prompt buttons to automatically tune and store the available channels.

Press RED colour prompt button for channels in system I.
Press GREEN colour prompt button for channels in system L.
Press YELLOW colour prompt button for channels in system B/G (see table at bottom of page).

The BLUE colour prompt button (Coo) can be used to clear all programme positions from 60 to 99.
To stop search, press \square .

You can skip over unprogrammed channels when you press PROGR + or PROGR - buttons during normal TV mode.

TV SYSTEM

This table indicates the tuning system used by the listed countries.

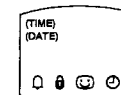
System B/G	Austria Belgium (B/H) Denmark Finland Germany Greece Iceland Italy Luxembourg (*)	Monaco (*) Netherlands Norway Portugal Spain Sweden Switzerland Yugoslavia (B/H)
System L	France (*) Monaco (*) Luxembourg	
System I	Ireland United Kingdom	

(*) Luxembourg and Monaco can receive both Systems B/G and L.

1-4 Setting Clock and Date

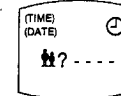
This is a 24 hour clock system.

- 1 Press MENU to enter the main function menu.

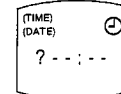


Note: If the Clock/Date has not been previously set or if the TV has been powered off for approximately 4 days, the menu screen shown in step 3 appears directly on pressing the MENU button.

- 2 Press BLUE (C) to select Time/Date mode.

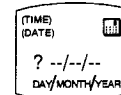


- 3 Enter the Parental Code. If you preset for the first time or forget the current Parental Code enter the factory preset code "4489".



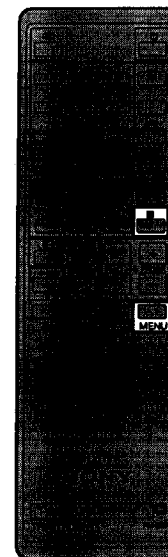
Time setting display appears.

- 4 Enter the time using the number buttons.



- 5 Enter the date using the number buttons. If you do not wish to change the date, press "TV" (\square) to go back to the normal TV picture.

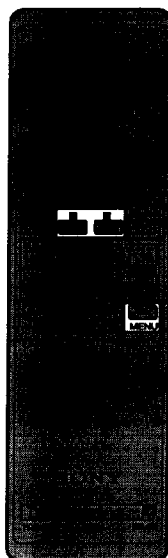
When the date has been entered, you will return to TV mode automatically.



If you have made a mistake
Restart from the first step.

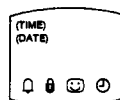
Note
If the parental lock (refer to page 22) code has been previously set you will be required to enter the correct parental lock code before being allowed to change the time and date.

1-5 Setting the Security Code

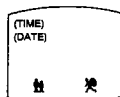


The security code can be used as an anti-theft precaution. If the Security Code is active and the TV has been disconnected from the power supply (AC or DC), when the TV is next powered up you must re-enter the 6 number Security Code to view any programmes.

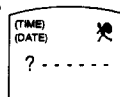
- 1 Press MENU to enter the main function menu.



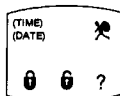
- 2 Press GREEN colour prompt button (G) to select the lock functions menu.



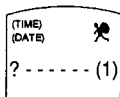
- 3 Press GREEN colour prompt button (G) on the display again to select the security lock function.



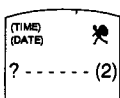
- 4 If you press for the first time enter the factory preset code "112063" otherwise, enter the current security code to enter the security lock menu.



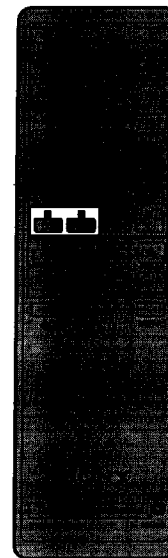
- 5 Press YELLOW colour prompt button (Y) to set your security lock code.



- 6 Enter a new security lock code (6 digits) using the number buttons.
Note: For security reasons, as numbers are entered they are displayed as "x" on the screen.



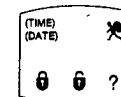
Setting the Security Code



- 7 After entering the new code enter the same code again.

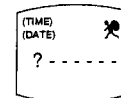
Both entries must be the same otherwise you will be requested to try again.

After the second entry the security code menu appears.



- 8 Press RED colour prompt button (R) to engage the security lock.
Press GREEN colour prompt button (G) to disengage the security lock.
You will return to the TV mode automatically.

If security code is enabled and the TV has been disconnected from the power supply (AC or DC), when the TV is next powered up you must re-enter the 6 number security code to view any programmes.



Three attempts at entering the security code will be allowed. If three successive incorrect codes are entered the TV will enter STANDBY mode and further attempts will not be allowed for approximately 4 - 5 minutes. As numbers are entered they will be displayed as "x" on the screen.

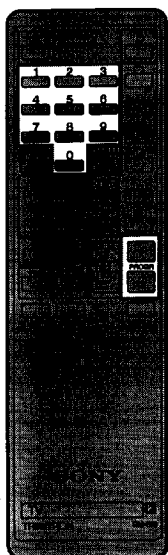
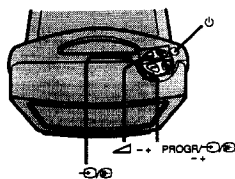
If you forget the security code you will need to return the set to the nearest Sony Service Centre so that the code can be reset. Therefore we strongly advise that you make a note of your code in the box below:

SECURITY CODE

--	--	--	--	--	--

When leaving the factory the Security Code is preset to "112063"

Watching TV Programmes



Preset channels first, following the instructions given on pages 9-14.

- 1 If using AC (household supply) ensure AC switch is on.
If the TV is in standby mode, turn on the TV by pressing one of the following buttons:

On TV	On Remote Commander
PROGR +/- On-Set button	PROGR +/-
Standby On-Set button	TV button
	Number (0-9) button



or



or



or

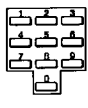


If the TV set is in standby mode the LED indicator at the front of the set is red, otherwise the front LED is green.

- 2 Press PROGR +/- on the TV or Remote Commander, or press the 0-9 buttons to select the programme you want to watch.



or



or



Press +/- first to select a double digit programme number.
For example to select programme number 23, press +/-, 2 and 3.



Watching TV Programmes

To listen to the TV/video sound through headphones
Connect a headphone (not supplied) to the headphone jack at the side of the TV (see page 5).

To turn the TV off
Press the standby button on either the TV or Remote Commander, the TV will go into standby mode.

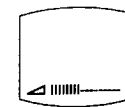
To turn the power off completely
Disconnect the power cord, or press the AC switch to "OFF" position. (AC mode only)

- 3 Press volume +/- on the TV or Remote Commander to adjust the volume.

Press + to increase the volume.
Press - to decrease the volume.



or

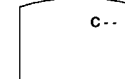
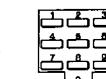


decrease → increase

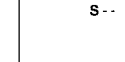
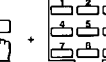
If you know the channel frequency number, you can tune a channel temporarily, without presetting.

Press "C" to select the mode you want to watch. (Press once to select regular TV mode; press twice to select cable TV mode.) Then press the number buttons (0-9) to select the channel. If you enter an incorrect channel number, the TV will briefly display "CXX" or "SXX" and ignore the entry.

Note: You can receive the displayed channel but it will not be stored by the TV.



TV mode

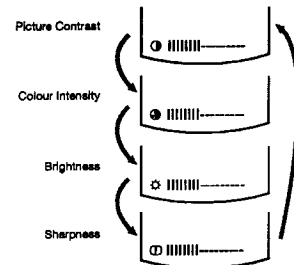


Cable mode

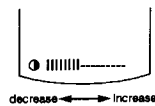
1-7 Adjusting the Picture

Use the picture adjustment feature to adjust the TV or video input picture to your requirement.

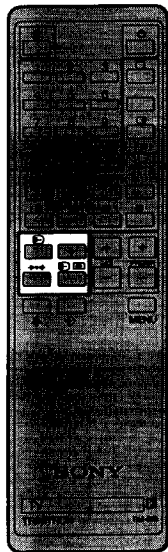
- 1 Press the picture adjust button (E) to enter picture adjustment mode. Each press will change the selection to be adjusted. Picture, colour, brightness, sharpness, (also hue – if receiving a NTSC signal).



- 2 Press picture adjustment +/- to make the adjustment. + to increase the level, - to decrease the level.



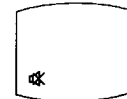
The display will disappear automatically if no button is pressed for a few seconds.



Restoring the Factory Preset Levels
To restore the factory preset levels, press *** (Reset) on the Remote Commander.

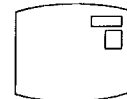
1-8 Using Other Convenient Features

To mute the sound, press M on the Remote Commander.



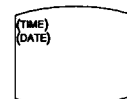
To restore the sound, press M again or V (volume +) on the Remote Commander or On-Set buttons.

Press Display on Screen (D) on the Remote Commander to keep the current TV programme number or video mode displayed on the screen.

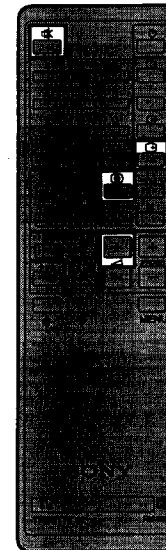


To cancel the display, press D again.

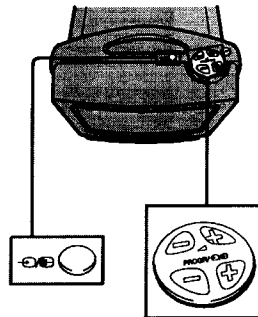
To display the time on the screen press C (Clock) on the Remote Commander. On first display the DATE and SECONDS also appear.



To cancel the time display press C (Clock) again.



1-9 Operating the TV Using On-Set Buttons



Note
Hue is only available for NTSC colour system.

Note
If the On-Set buttons are not pressed within 5 seconds the TV goes back to normal TV picture.

Operating TV using on-set buttons

To change the volume press \triangle/∇ .

To change the programme press $\text{PROGR}/\text{CH}/\text{E}/\text{F}/\text{A}$ button.

Selecting video input and picture adjustment

Press the mode select button successively to select video mode or picture adjustment modes, i.e. video mode, picture, colour, brightness, sharpness. Adjustment can then be made by the $\text{PROGR}/\text{CH}/\text{E}/\text{F}/\text{A}$ button.

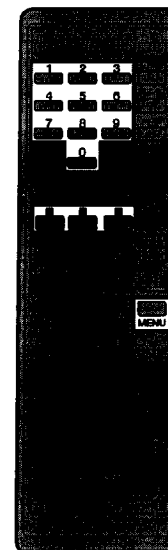
Programme number mode		
Video input mode	Video select mode	
Picture adjustment mode	Picture contrast	
	Colour intensity	
	Brightness	
	Sharpness	
	Hue	

If the mode select On-Set Button has not been pressed within the last 5 seconds (approx.) then the $\text{PROGR}/\text{CH}/\text{E}/\text{F}/\text{A}$ button will recover its normal function of adjusting programme numbers.

To adjust the video mode using On-Set Buttons
The Video mode menu must be displayed on the bottom of the screen (as above). The $\text{PROGR}/\text{CH}/\text{E}/\text{F}/\text{A}$ buttons then toggle the video modes forward/backward with the selected video mode highlighted in red.

To adjust any of the picture quality levels
The mode select button must be used to select the level to adjust, then the $\text{PROGR}/\text{CH}/\text{E}/\text{F}/\text{A}$ will adjust the level.

1-10 Other Menu Features

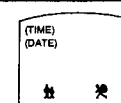


You can use Parental Lock to prevent the TV being used by (for example) children between predefined times.
A parent can select a Lock "ON" time (e.g. 21:00) and a Lock "OFF" time (e.g. 08:00) such that during the period 21:00 - 08:00 access to programmes is denied unless a 4 digit "parental lock code" is entered.

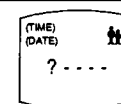
1 Press MENU to enter the main function menu.



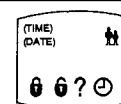
2 Press GREEN colour prompt button (G) to select the lock functions menu.



3 Press RED colour prompt button (R) to select the Parental Lock function.

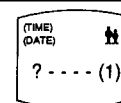


4 If you preset for the first time enter the factory preset code "4489" otherwise enter the current parental code to enter the Parental Lock menu.



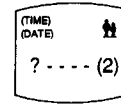
Note: If you don't wish to set a new Parental Lock code go to step 8.

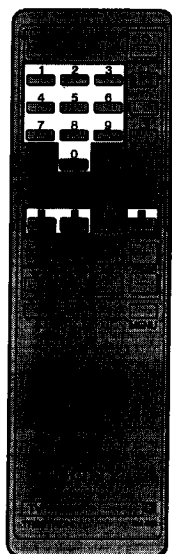
5 Press YELLOW colour prompt button (Y) to set a new parental lock code.



6 Enter a new parental lock code (4 numbers) using the number buttons.

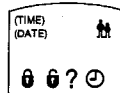
Note: For security reasons, as numbers are entered they are displayed as "*" on the screen.





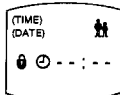
Note: It is necessary to enter both parental lock ON and OFF times. If this is not done the previously set times will still be effective. If you should forget the set parental code, then the code "4489" will allow you access.

- 7 After entering the new code, enter the same code again. Both entries must be the same, otherwise you have to try again.



After the second entry, the parental code menu appears.

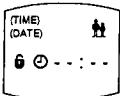
- 8 Press BLUE colour prompt button (Ⓛ) to select the parental lock ON screen. The previously set parental lock ON time appears.



- 9 Press the number buttons to set the parental lock ON time.

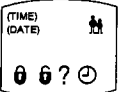
Note: You have to set the time using the 24 hour clock system. e.g. 7 p.m. is entered as 19:00.

After entering the parental lock ON time, the parental lock OFF screen appears. The previously set parental lock OFF time will be shown



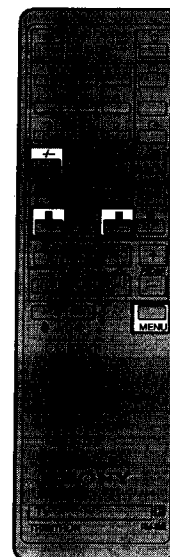
- 10 Press the number buttons to set the parental lock OFF time. After setting the parental lock OFF time you will be returned to the parental lock menu screen.

Press RED colour prompt button (Ⓡ) to enable the parental lock. Press GREEN colour prompt button (ⓖ) to disable the parental lock. (Pressing either button will return you to the normal TV mode).



Other Menu Features

To stop Demo feature press any button.

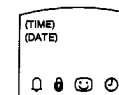


Alarm clock
The TV must be either powered on or be in standby mode for the Alarm to operate.

To cancel alarm clock
Press -/- button in Step 3.

The Demo feature consists of a series of On Screen Display demonstrations. It begins with the Sony logo, followed by a list of the TV features and a run through of the various menu screens used.

- 1 Press MENU to enter the main function menu.



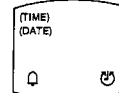
- 2 Press YELLOW colour prompt button (Ⓨ) to access the "Demo" feature.

This TV has an alarm clock. The alarm will sound for one minute.

- 1 Press MENU to enter the main function menu.

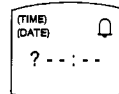


- 2 Press RED colour prompt button (Ⓡ) to select the Alarm/Sleep functions menu.

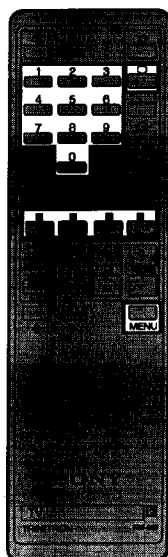


- 3 Press RED colour prompt button (Ⓡ) to enter the Alarm Clock menu.

The time shown will be the previously set time.



To stop the alarm
Press any button on the Remote
Commander or on TV.

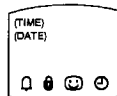


To switch off the timer
Press RED in Step 4.

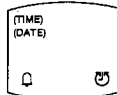
- 4 Press the number buttons to enter the Alarm time.
You should enter the time using the 24 hour clock system.
After entering the Alarm time you will be returned to the normal TV
operating mode.

You can use the Sleep Timer to set a time after which the TV will be
automatically switched into standby mode.

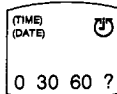
- 1 Press MENU to enter the main function menu.



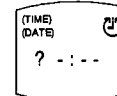
- 2 Press RED colour prompt button (4) to select the Alarm/Sleep
functions menu.



- 3 Press GREEN colour prompt button (5) to enter the Sleep Timer
menu







- 4 Set the time duration using one of the following colour prompt
buttons.
 - Press RED (0) to disengage sleep timer if already set.
 - Press GREEN (30) to set to 30 minutes.
 - Press YELLOW (60) to set to 60 minutes.
 - Press BLUE (?) to set any time you want up to 9 hours 59 minutes using the number buttons.



On entering this time you will be
returned to normal TV operating mode.

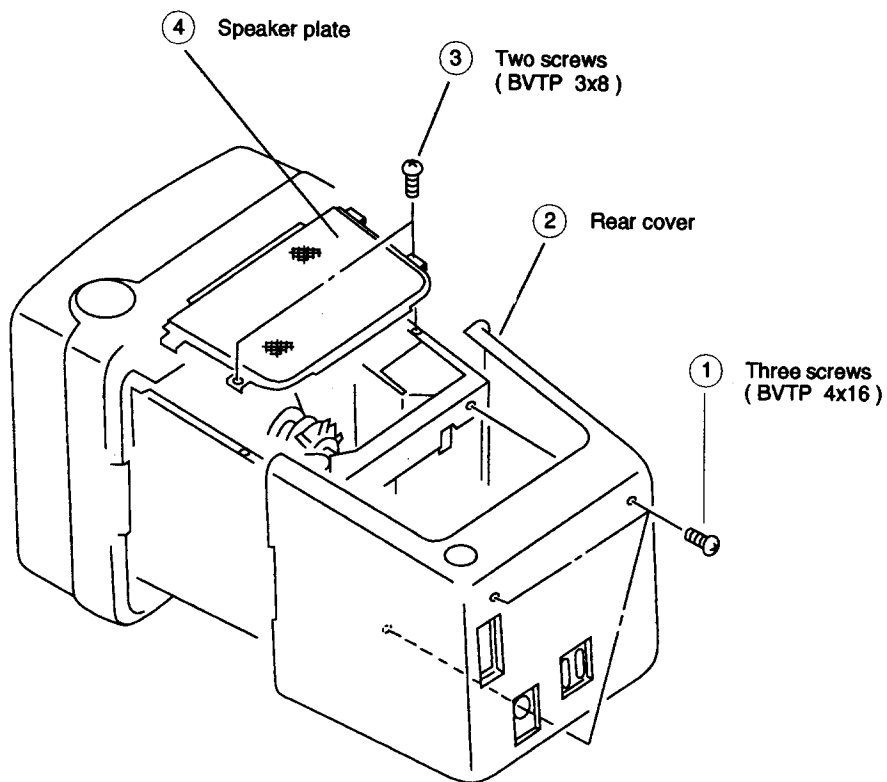
1-11 Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, please contact your nearest service facility.

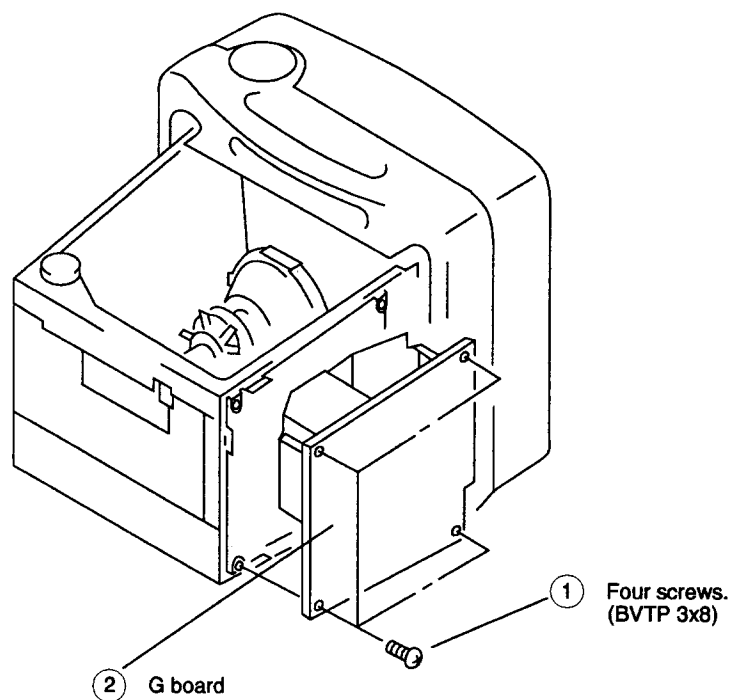
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> • Ensure the TV is plugged in. • Check the aerial connection. • Check the TV/VIDEO input setting. • Turn the TV off for 3 or 4 seconds then turn it on again. • Check AC power switch is ON. • Check TV is on stand-by or not
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> • Adjust the picture with the picture adjustment buttons. • Adjust the telescopic aerial.
Good picture, no sound	<ul style="list-style-type: none"> • Press the VOLUME + button on the TV or Remote Commander. • Disconnect the headphones. • If the mute symbol is displayed on the screen press the mute symbol on the remote commander or press VOLUME +.
No colour for colour programmes	<ul style="list-style-type: none"> • Adjust the colour with the colour adjustment buttons. • Adjust the telescopic aerial.
Poor colour (DC operating mode)	<ul style="list-style-type: none"> • Switch to 240V AC operation then return to DC operation.
Snow and noise	<ul style="list-style-type: none"> • Check that it is an active or correct channel. • Check the cable setting. • Check aerial/cable connections.
 Dotted lines or stripes	<ul style="list-style-type: none"> • This is often caused by local interference (for example cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	<ul style="list-style-type: none"> • Reflections from nearby mountains or buildings often cause this problem. Connecting CATV cable may improve the picture.
 ?	<ul style="list-style-type: none"> • Security lock is engaged, enter your current security lock code. If you incorrectly enter your security code 3 times the TV will enter STANDBY mode and further attempts will not be allowed for approximately 4-5 minutes. Should you forget the security code contact your nearest Sony Service Centre.
 ?	<ul style="list-style-type: none"> • Parental Lock is engaged, enter your current Parental Lock code.
Try another channel. It could be station trouble.	

SECTION 2 DISASSEMBLY

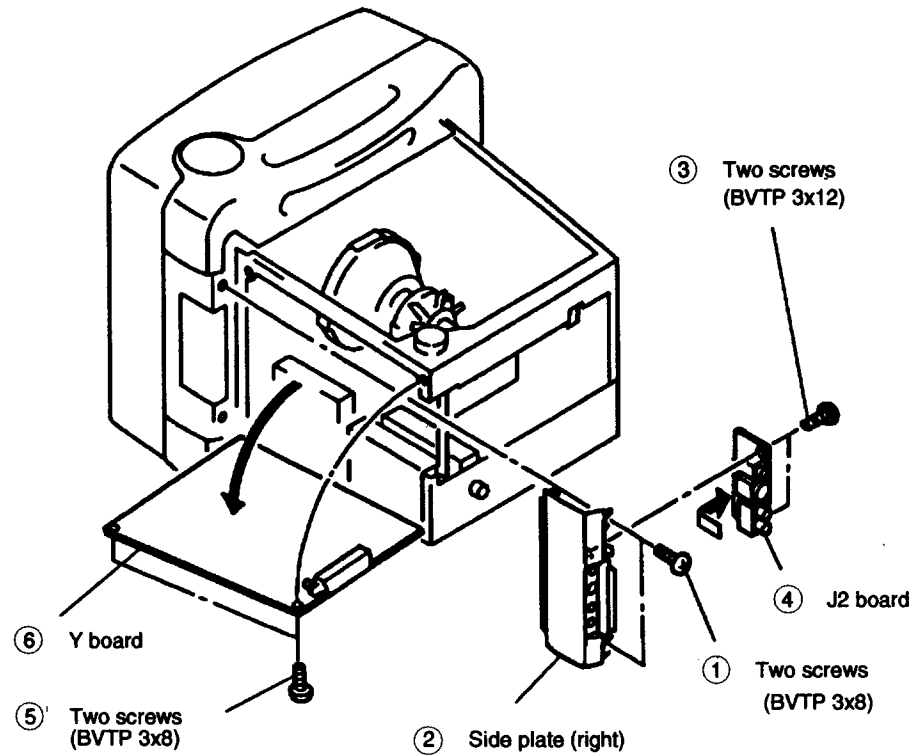
2-1. REAR COVER REMOVAL



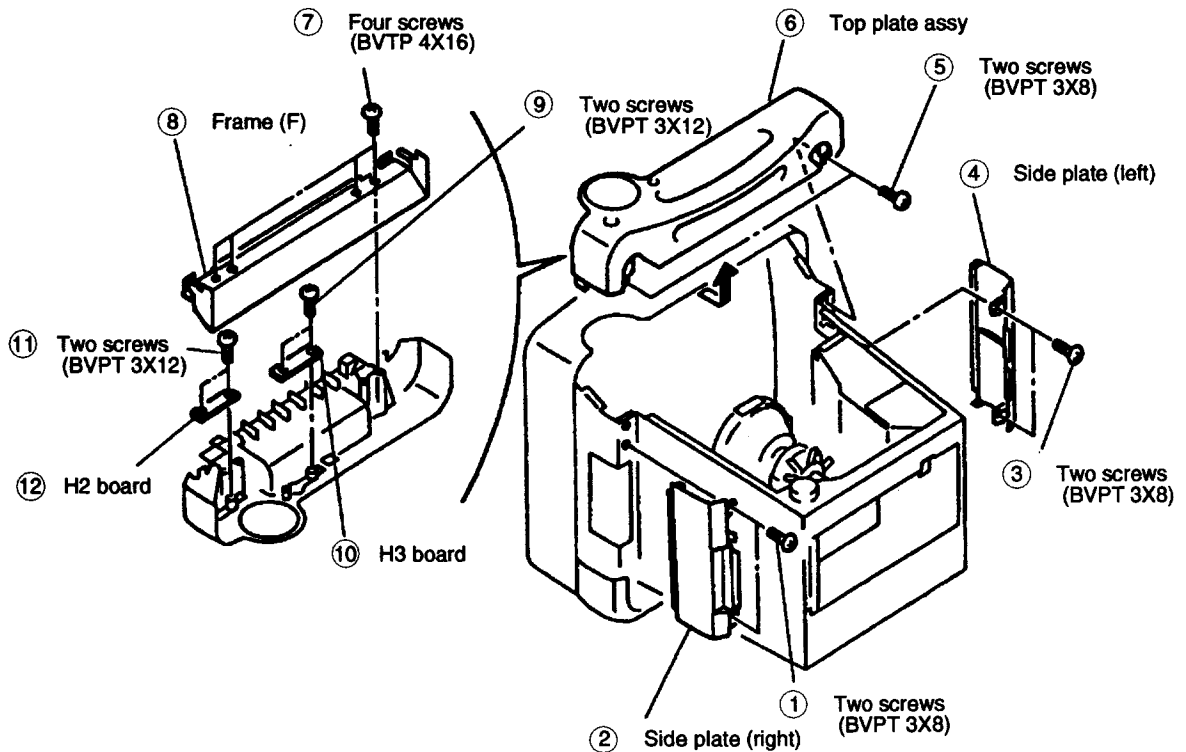
2-2. G BOARD REMOVAL



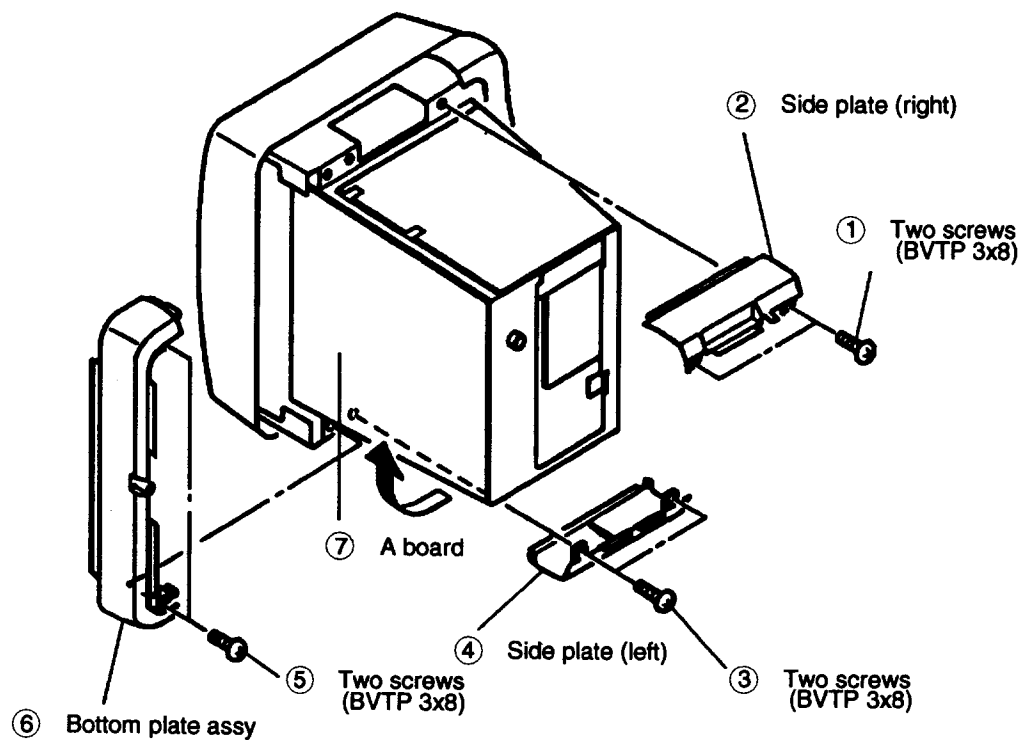
2-3. J2 AND Y BOARD REMOVAL



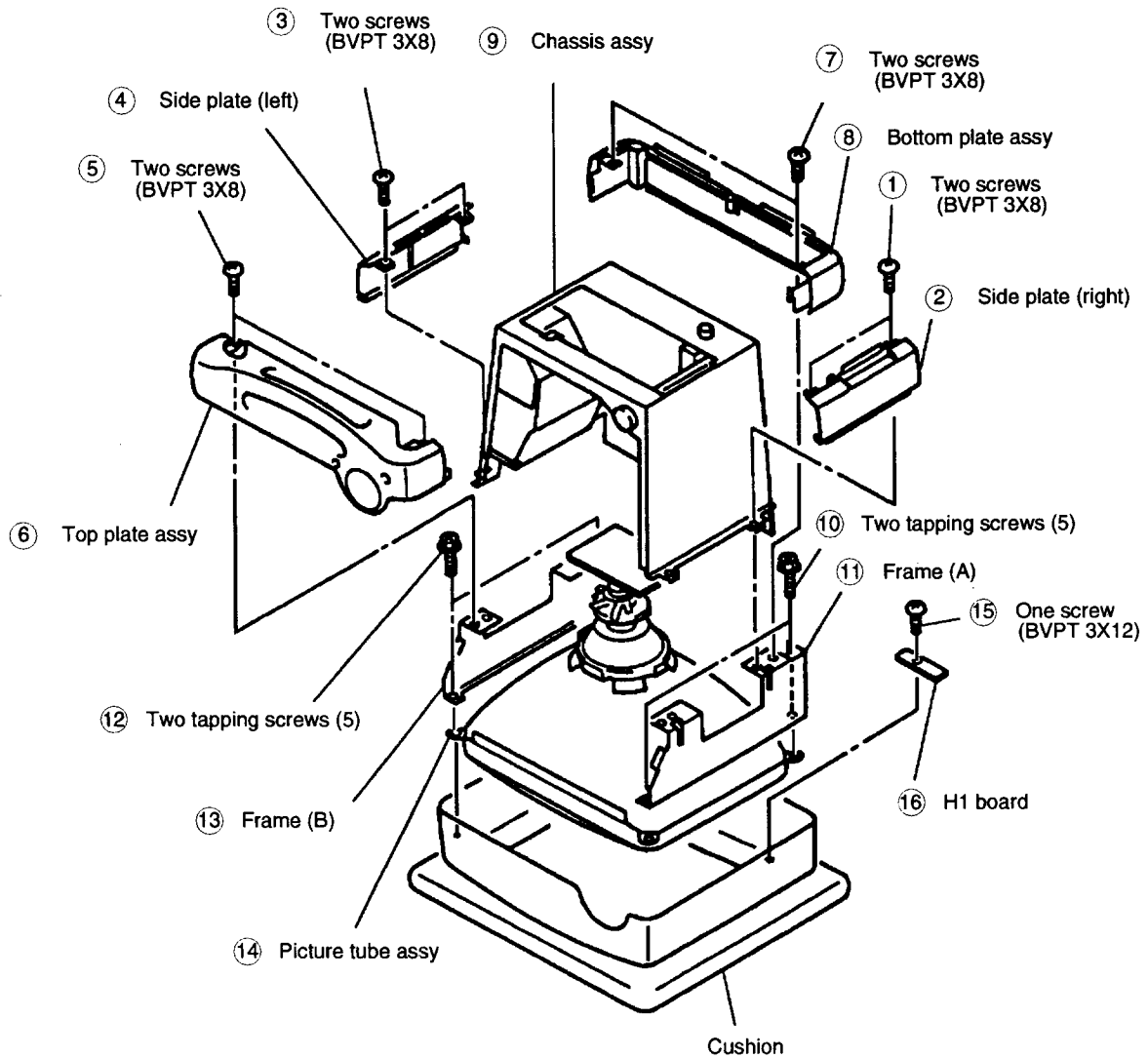
2-4. H2 AND H3 BOARD REMOVAL



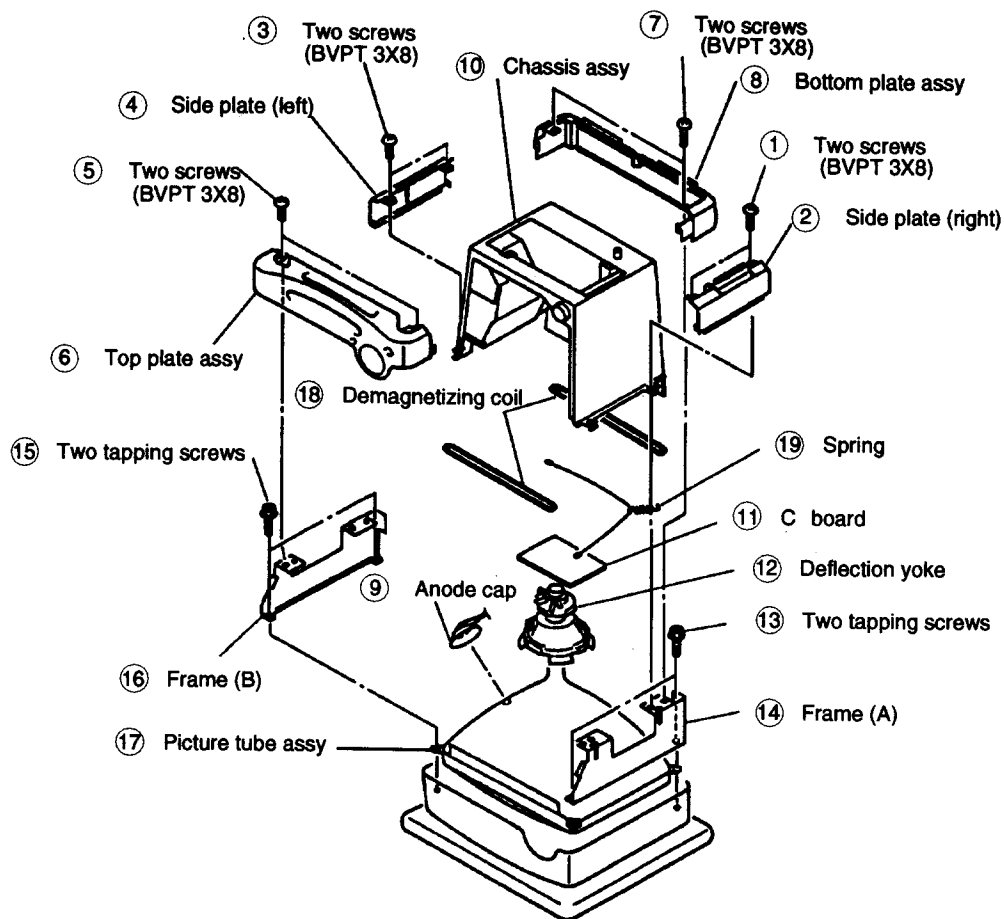
2-5. SERVICE POSITION



2-6. H1 BOARD REMOVAL



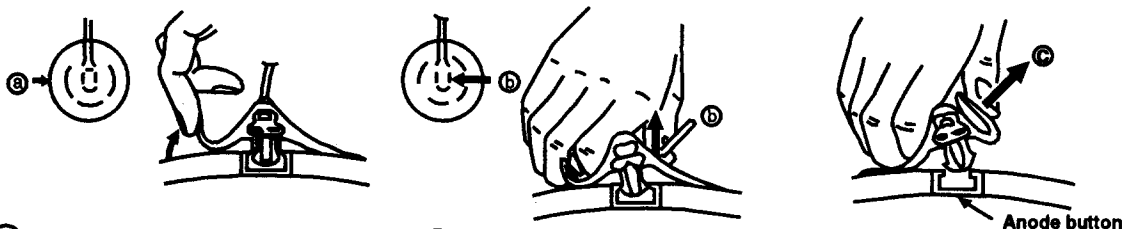
2-7. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

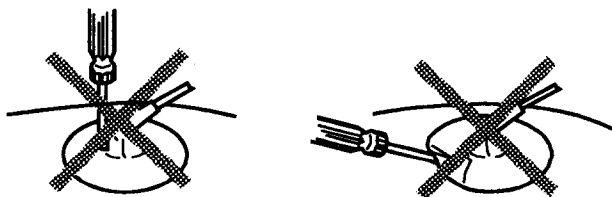
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

• REMOVING PROCEDURES.



• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch below should be set as follows unless otherwise noted:

- ⓘ CONTRAST control.....80%(or Normal by commander)
- ☼ BRIGHTNESS control.....50%

Perform the adjustments in order as follows:

1. Beam landing
2. Convergence
3. Focus
4. Screen (G2) and White Balance

Note: Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.

1. Input a raster signal with the pattern generator.
 Contrast } normal
 Brightness }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backwards, and adjust with the purity control so that the red is in the centre and the blue and the green are at the sides evenly.
 (see Fig. 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen becomes red. (See Fig. 3-1.)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke is determined, fasten the deflection yoke with the screws.
7. When landing at the corner is not correct, adjust by using disk magnets.
 (See Fig. 3-4.)

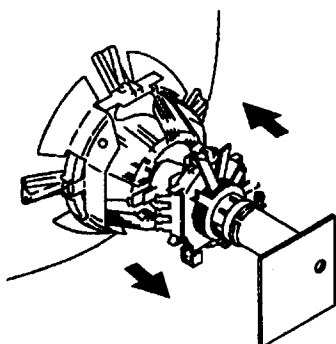


Fig. 3-1

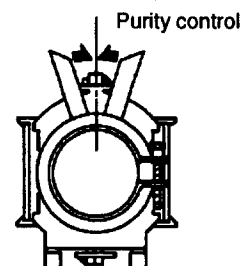


Fig. 3-2

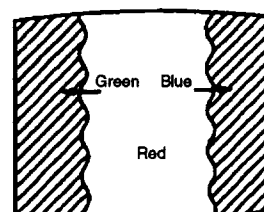


Fig. 3-3

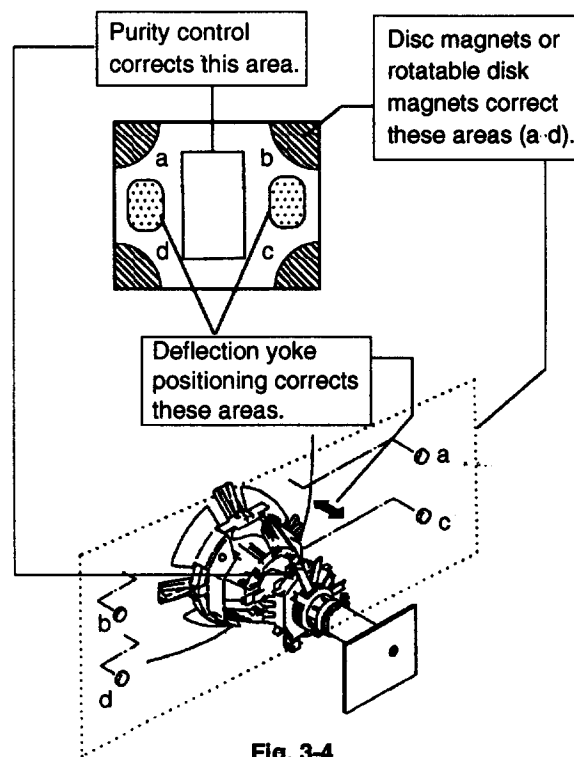


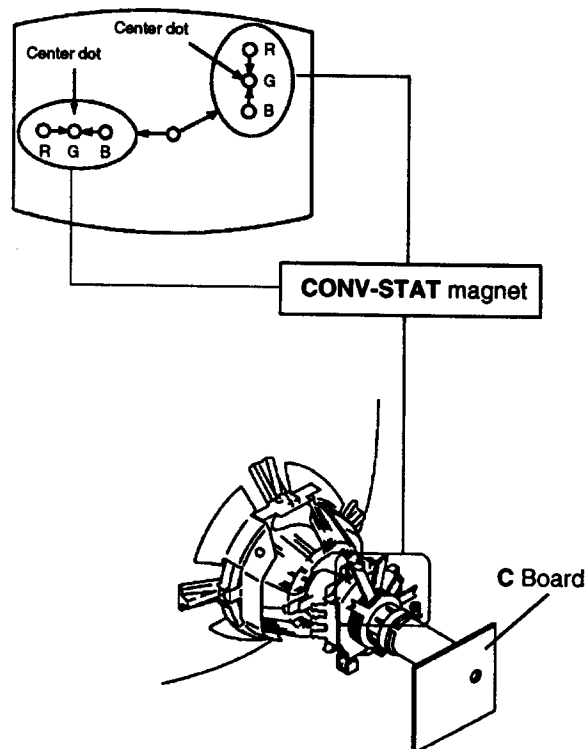
Fig. 3-4

3-2. CONVERGENCE

Preparation :

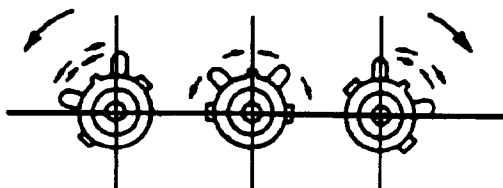
- ▶ Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- ▶ Set BRIGHTNESS control to minimum.
- ▶ Feed in dot pattern.

(1) Horizontal and vertical static convergence

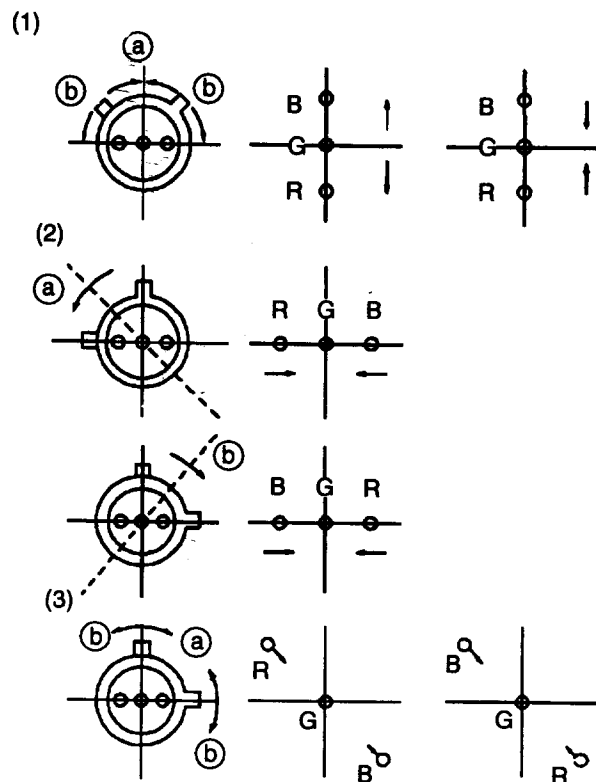


Adjust CONV-STAT Magnet to coincide red, green and blue dots at the center of the screen.

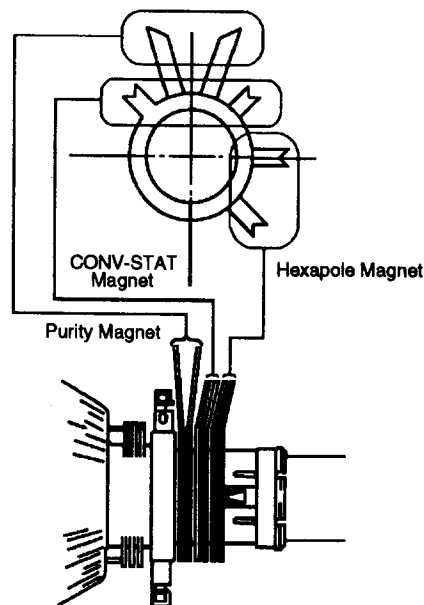
Tilt the CONV-STAT magnet and adjust the static convergence to open or close the CONV-STAT magnet.



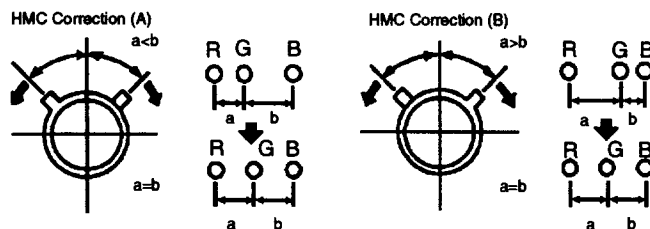
- When the CONV-STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.



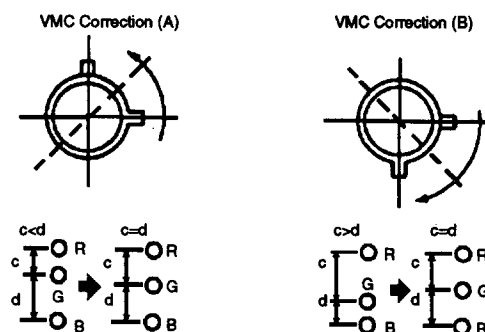
※ IF the red and green dots do not coincide with the blue dot, adjust with BMC (6-pole) magnet.



- HMC and VMC correction for BMC (6-pole) magnet.
1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-pole) magnet.



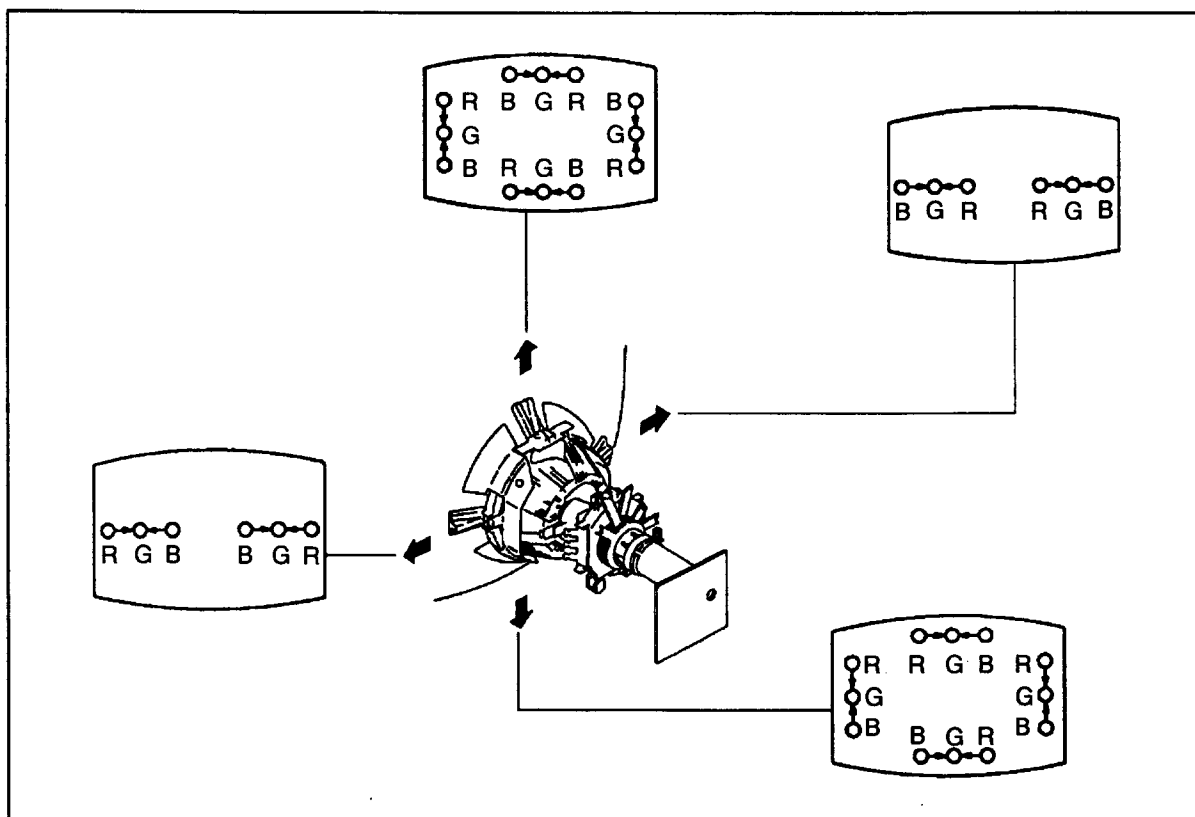
2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-pole) magnet.



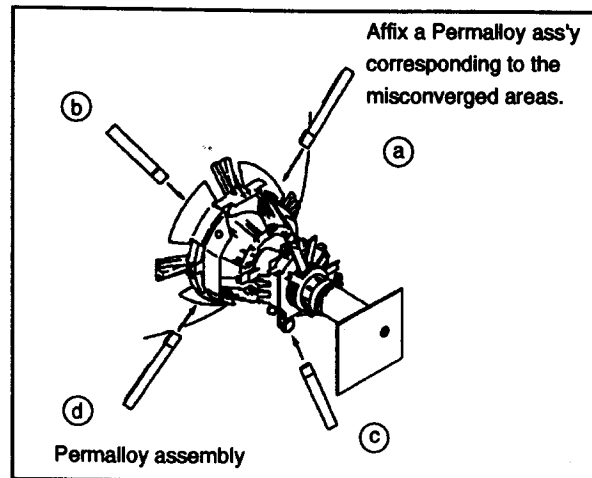
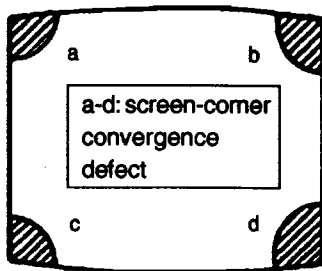
(2) Dynamic Convergence Adjustment

Preparation :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
 2. Remove the deflection yoke spacers.
 3. Move the deflection yoke for the best convergence as shown below.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.



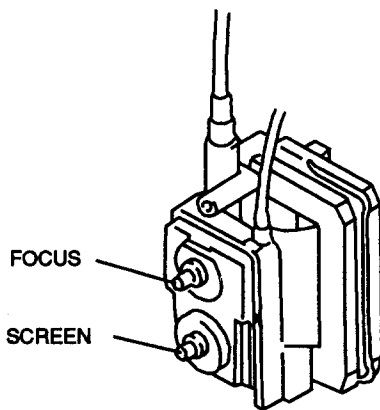
(3) Screen Corner Convergence.



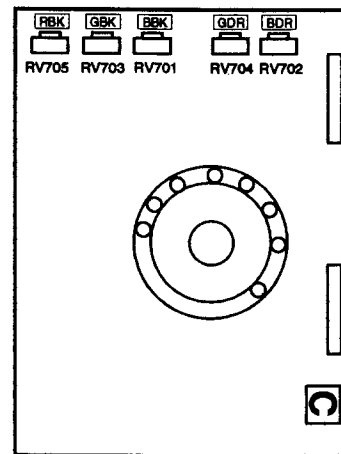
3-3. FOCUS.

1. Input a monoscope signal.
Contrast } normal
Brightness }
2. Adjust the FOCUS control (located on the Fly-back transformer) for the best picture at the center and both sides of the screen.

3-4. SCREEN G2 SETTING.



1. Input a dot signal from pattern generator.
2. Set the picture brightness control to minimum.
3. Apply 150V DC to the cathodes KR, KB and KB of the CRT from an external power source.
4. While watching the picture adjust the SCREEN control (located on the Fly-back transformer) fully counter clockwise then **slowly** clockwise to the point where the picture just appears.



C BOARD (COMPONENT SIDE)

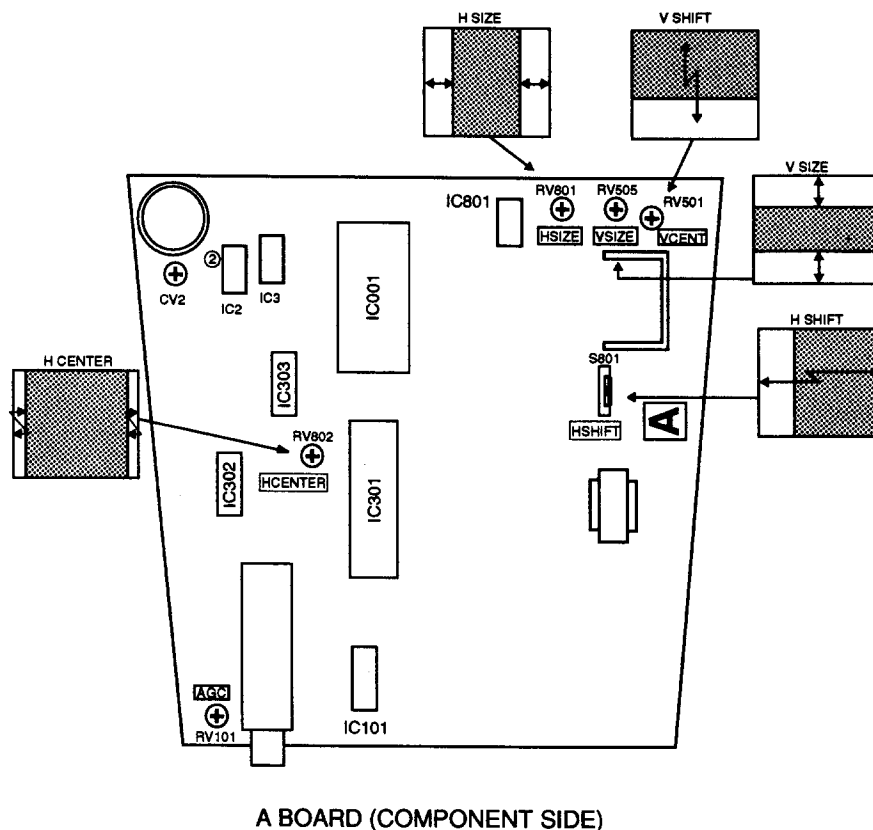
3-5. WHITE BALANCE.

1. Ensure that the SCREEN G2 setting is adjusted correctly before carrying out the following adjustments.
2. Input an all white signal from the pattern generator.
3. Turn all background VRs (RV701, RV703, RV705) to minimum.
4. Adjust the Blue and Green drive VRs (RV702, RV704) to the center of their range.
5. Turn picture to minimum using Remote Commander.
6. Increase RED background VR RV701 so that the RED is just visible.
7. Increase BLUE background VR RV705 to obtain MAGENTA.
8. Increase the GREEN background VR RV703 to obtain OFF WHITE.
9. Set the picture to maximum using the Remote Commander.
10. Observe the screen and adjust the drive VRs (RV702, RV704) for best WHITE BALANCE.
11. For best results repeat steps 2-10 several times.

SECTION 4

CIRCUIT ADJUSTMENT

4-1. A BOARD ADJUSTMENTS



TUNER AGC ADJUSTMENT (RV101)

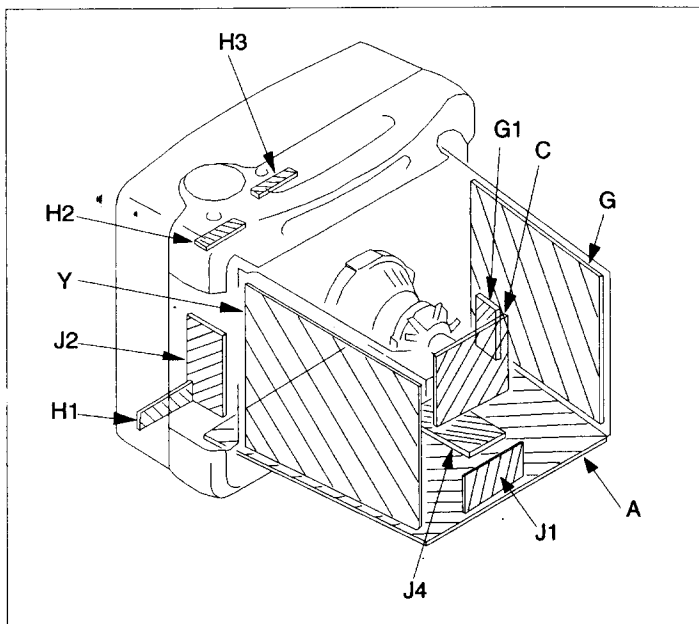
1. Align with an appropriate signal between stations.
2. Adjust (RV101 AGC VR) so that the snow noise and cross modulation just disappear from the picture.

REAL TIME CLOCK ADJUSTMENT (CV2)

Equipment Required : Frequency Meter capable of measuring to an accuracy of 1Hz up to 35KHz.

1. Ensure that the set is disconnected from the AC and DC power source.
2. Connect the probe of the Frequency Meter to pin 2 of IC2.
3. Adjust CV2 for a meter reading of 32768Hz +/- 3Hz.

5-2. CIRCUIT BOARD LOCATION



Reference information





RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: RW	NONFLAMMABLE WIREWOUND
	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE




5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS - Conductor Side -


Note :

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{K}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/10W

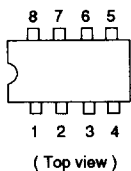
-  : nonflammable resistor.
-  : fusible resistor.
-  : internal component.
-  : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V (volts).
- Readings are taken with a $10\text{M}\Omega$ digital multimeter.
- Readings are taken with a PAL color-bar signal input.

- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers are waveform references
-  : B+ bus.
-  : B- bus.
-  : signal path.

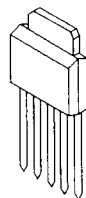
Note : The components identified by shading and marked  are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

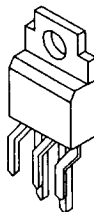
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RC4558P
BA4558



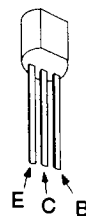
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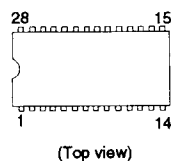
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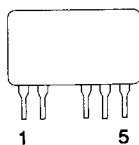
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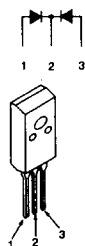
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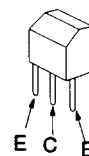
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D8LC20UR

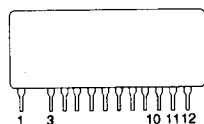


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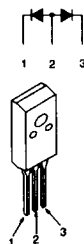


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TDA8362-N3
TDA3843-V3

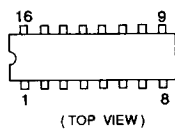
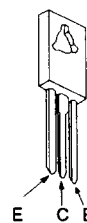
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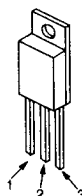
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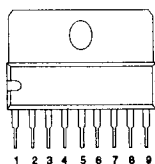
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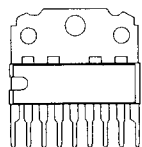
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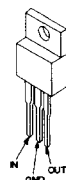
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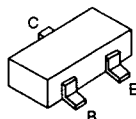
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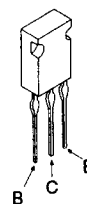
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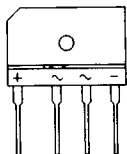
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DTC144ES
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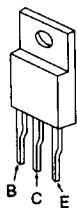
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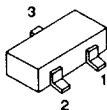
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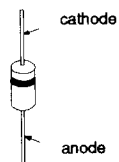
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2SD1761-E
2SA1328-Y



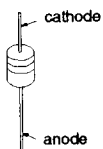
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MA704WK



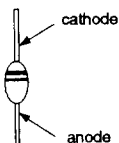
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RU-3AM
ERC06-15S
EGP20G
RGP10G
RGP15J



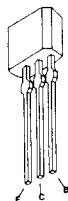
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MTZJ-T-77-12B
MTZJ-T-77-9.1B
MTZJ-9.1
MTZJ-33A
RD5.1ESB
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1SS238
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GP08DPKG23



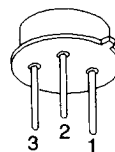
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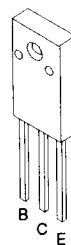
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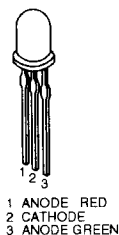
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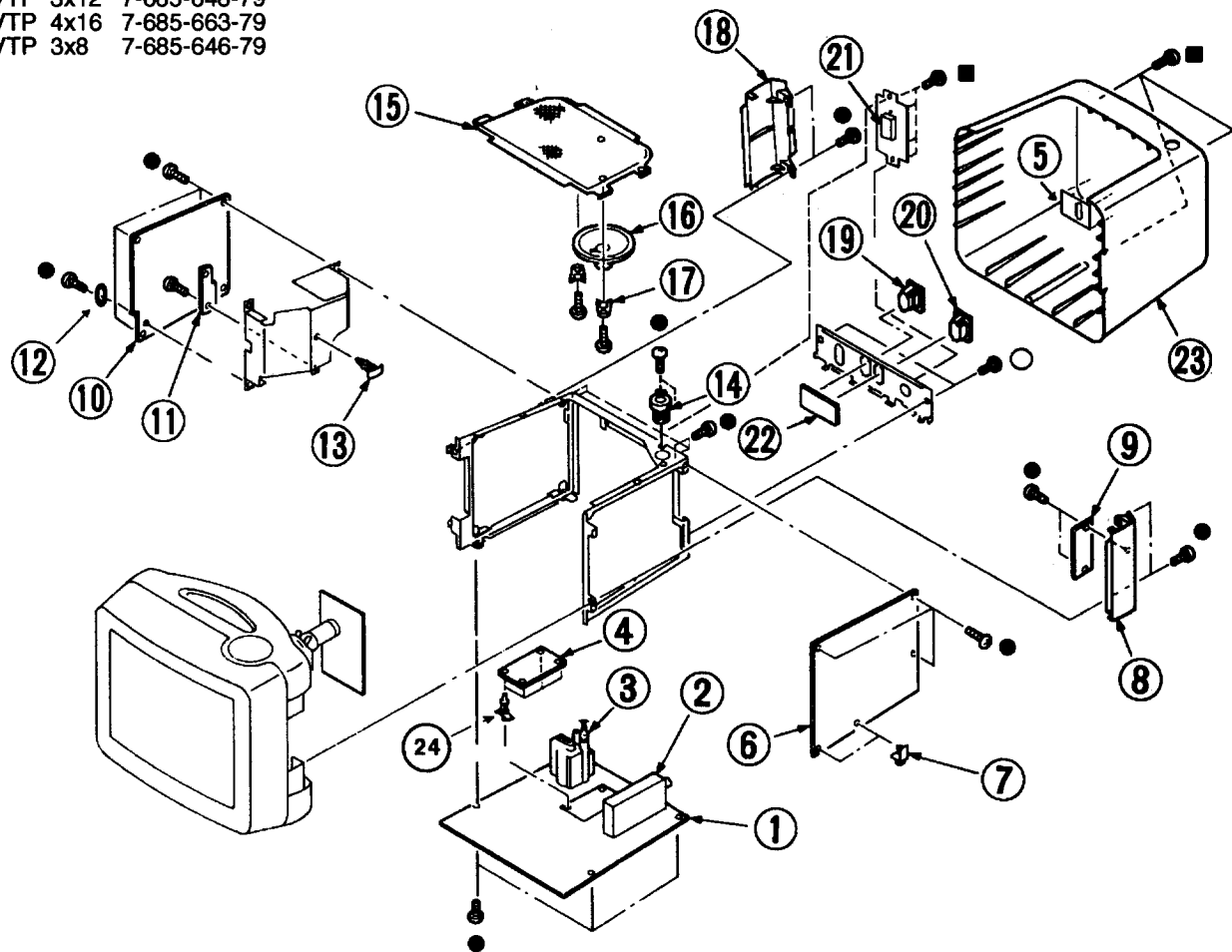


SPR-54MVW



CHASSIS

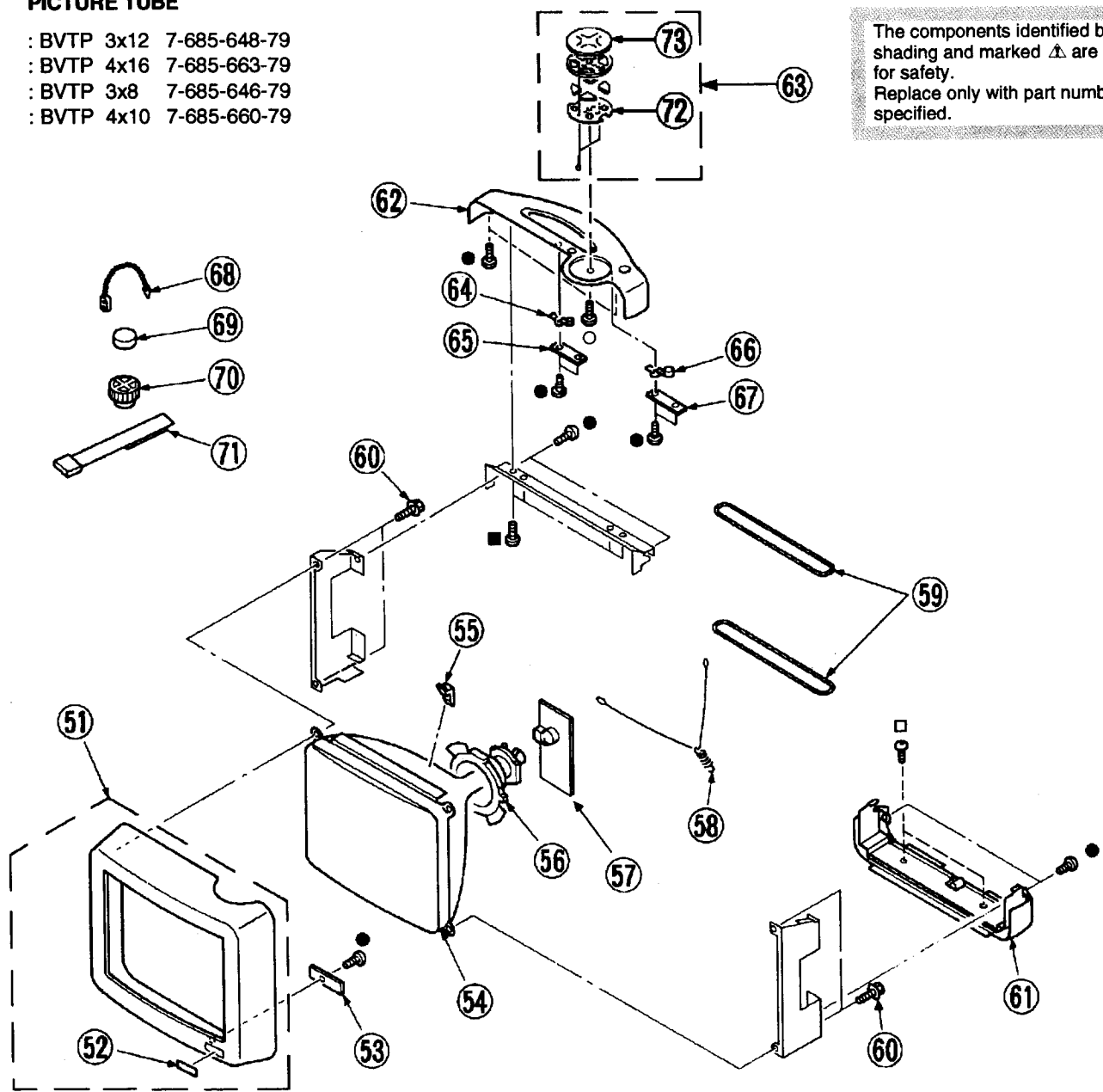
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: BVTP 4x16 7-685-663-79
: BVTP 3x8 7-685-646-79



6-2. PICTURE TUBE

- : BVTP 3x12 7-685-648-79
- : BVTP 4x16 7-685-663-79
- : BVTP 3x8 7-685-646-79
- : BVTP 4x10 7-685-660-79

The components identified by shading and marked Δ are critical for safety. Replace only with part number specified.



KV-M1100D

RM-818

SERVICE MANUAL

AEP Model
Chassis No. SCC-F04A-A



EE-1 CHASSIS

MODELS OF THE SAME SERIES

KV-M1100D	KV-M1100E
KV-M1100A	
KV-M1100B	

SPECIFICATIONS

【KV-M1100D】

Television system	B/G/H/I/L
Color system	PAL, SECAM, NTSC3.58, NTSC4.43
Channel coverage	ITALIA VHF : A-H2 (C) UHF : 21-69 PAL B/G VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10
Frequency medium	Mono-Standard F1 : Video 38.9MHz F1 : Audio 33.4MHz
Picture tube	Trinitron tube Approx. 28 cm (Approx. 26 cm picture measured diagonally) 90 °-degree deflection
Inputs	1 21-pin connector : CENELEC standard including RGB input. Y : 1Vp-p±3dB 75ohm C : 0.3Vp-p±3dB 75ohm
Outputs	21-pin connector : CENELEC standard Earphones jack : minijack
Sound output	2.5W (Music)
Power consumption	56 Wh

Dimensions	Approx. 296.2 × 261.0 × 328.5mm (w/h/d)
Weight	Approx. 8.5 kg
Supplied accessories	RM-818 Remote Commander (1) IEC designation R6 batteries (2) Terescopic antenna (1) DC cord (1) AC cord (1)

【RM-818】

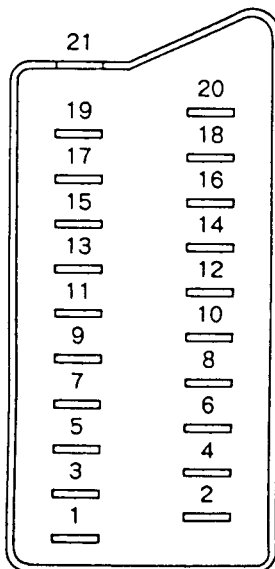
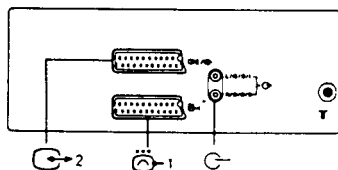
Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx. 44 × 25.3 × 108.4mm (w/h/d)
Weight	Approx. 105g (including batters)

Design and specifications are subject to change without notice.



TRINITRON® COLOR TV
SONY®

21 pin connector (Ⓒ 1, Ⓓ 2)



Pin No.	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
2	○	○	Audio input B (right)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
3	○	○	Audio output A (left)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
7	○	●	Blue input	0.7V ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V): Part mode Low state (0 – 2V): TV mode Input impedance: More than 10kohms Input capacitance: Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal: 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) chroma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance: 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open)

* at 20Hz – 20kHz



4 pin connector (Ⓔ)

Pin No.	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
4	C (S signal) input	0.3V ± 3dB, 75ohms, positive

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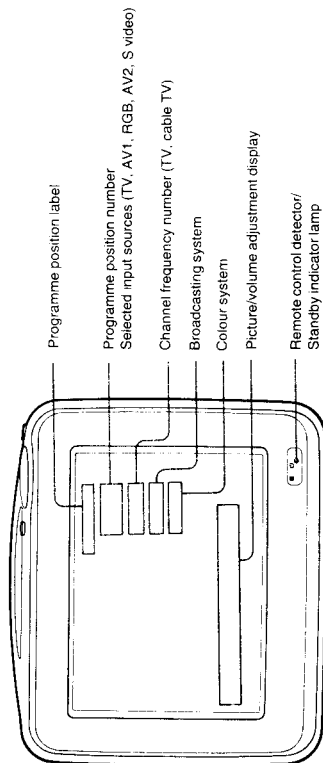
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1. GENERAL			4. CIRCUIT ADJUSTMENTS		
Identifying the parts		4	4-1. commander operation is service mode		25
Setting up your TV		5	4-2. A board adjustments		29
Presetting Channels		6			
Watching TV programmes		10	5. DIAGRAMS		
Adjusting the picture		11	5-1. Block diagram		31
Using other convenient features		12	5-2. Circuit boards location		34
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Identifying the Parts

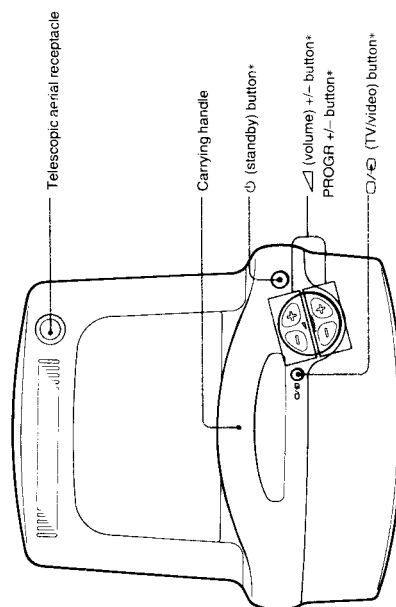
Front controls and screen displays



Note

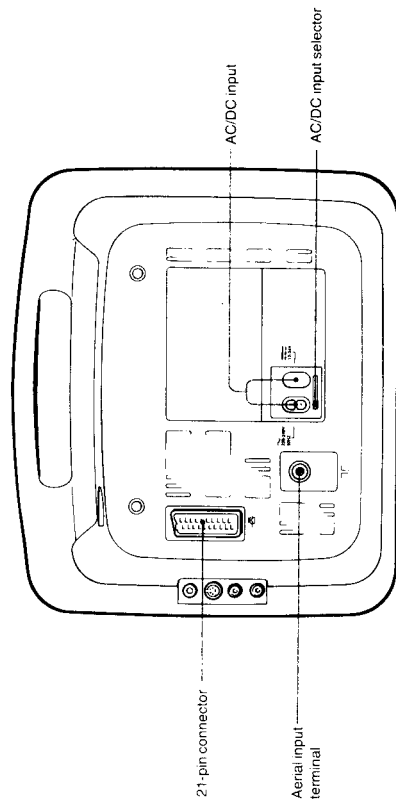
When you first connect the TV to a power outlet, the TV will automatically go to standby mode, and the standby indicator lamp will light.

Top of the TV



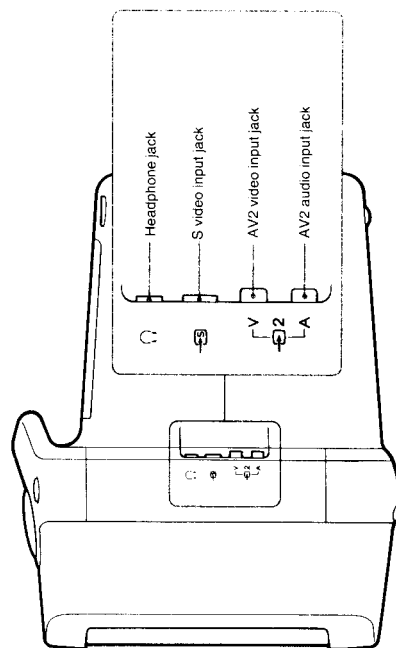
* The same function buttons are also located on the Remote Commander.

Rear of the TV



Side view

The symbol marks that appear at the side of the TV correspond to the jacks located on the recessed rear of the TV.



GB

SECTION 1 GENERAL

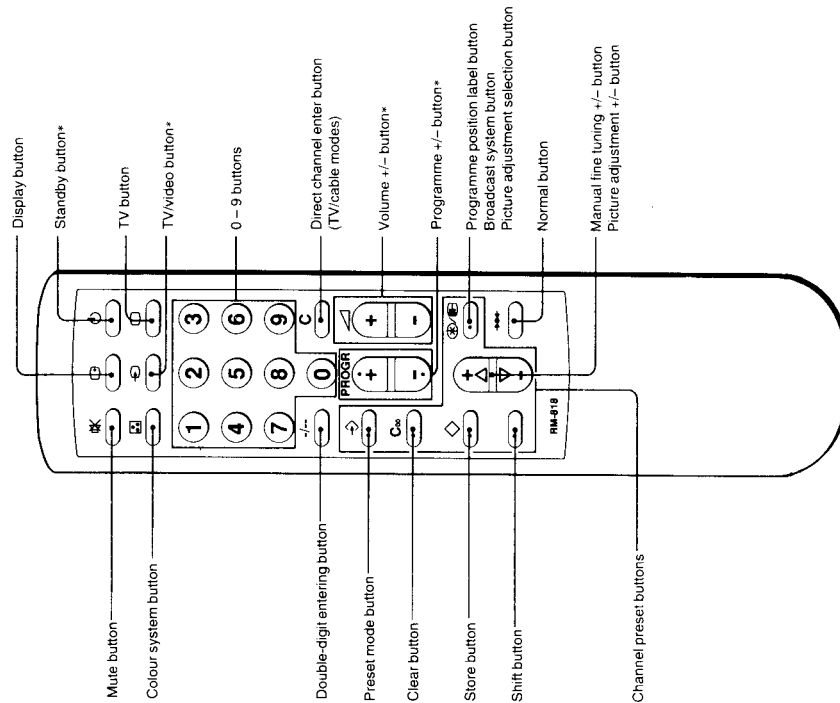
This section is extracted from instruction manual.

Chapter 1: Preparing for Use Setting Up Your TV

Identifying the Parts

Remote Commander RM-818

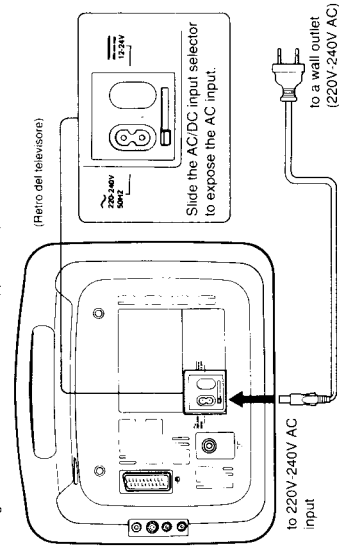
Most of the functions of the TV require the Remote Commander. Take care not to lose it.



* The same function buttons are also located on the TV.

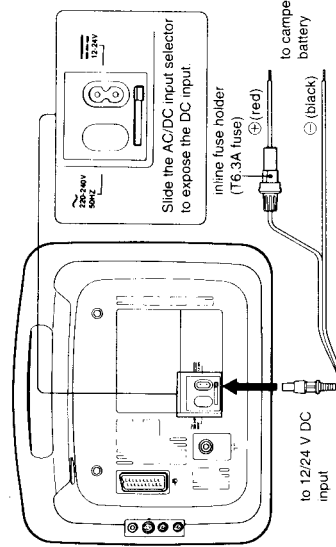
Using household (AC) current

To watch your TV using household current, attach the supplied AC power cord as shown below.



Using a car battery

You can use the power from your camper van's battery by attaching the supplied DC power cord to the battery. (Attach the cord using clips designed for this purpose — not supplied).



Notes

- For car use, the TV is designed to be operated on negative ground 12V-24V DC only.
- Use the supplied DC power cord manufactured by Sony.
- The polarity of other manufacturers' cord plugs may be different.
- When you are not using the TV, disconnect the DC power cord. If you don't, battery power will be lost, even in standby mode.
- In hot temperatures, do not leave the TV in the car for a long time.
- If colour separation occurs when the TV is connected to a DC power source, switch to household (AC) current.

When battery power falls below 12V, the TV automatically switches off and goes to standby mode. (The standby lamp blinks for several seconds, then remains lit.) First recharge the battery, then press the PROGR +/- button on the TV or press \square on the Remote Commander to turn the TV on.

Caution

- Do not connect the DC power cord to the AC power input, or the AC power cord to the DC power input.
- If you connect the DC power cord to the AC power outlet, or to the incorrect pole of the camper van's battery, the inline (T6.3A) fuse will burn out. Replace a burned-out fuse only with the same type fuse.

Presetting Channels

You can preset up to 60 channels onto programme position numbers (00 – 59), then select those position numbers to view the channels.

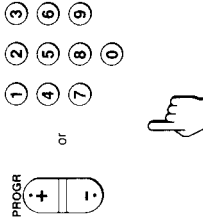
If you do not know the channel numbers of the stations you want to preset, follow the steps below (*Presetting channels automatically*): If you know the channel numbers, follow the steps on pp. 42, 43 (*Presetting channels directly*).

Presetting channels automatically

1 While pressing the shift button, press \rightarrow to enter preset mode.



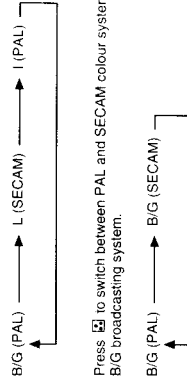
2 Press **PROGR +/-** on the Remote Commander, or press the 0 – 9 buttons to select the position number to which you want to preset a channel.



Note
To sell
For ex

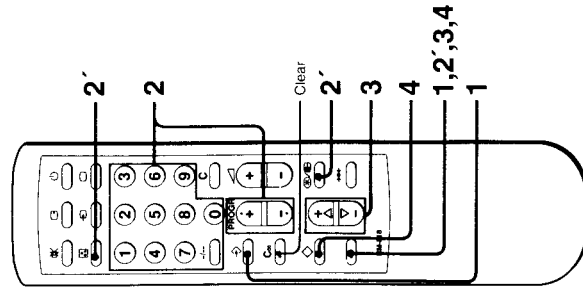
NOTE
To select a double-digit number with the 0 – 9 buttons, first press **+/–**.
For example, to select 23, press **+/–**, 2 and 3.

2' While pressing the shift button, press to select the broadcasting (colour) system for your area. Each time you press, the systems change as shown below.



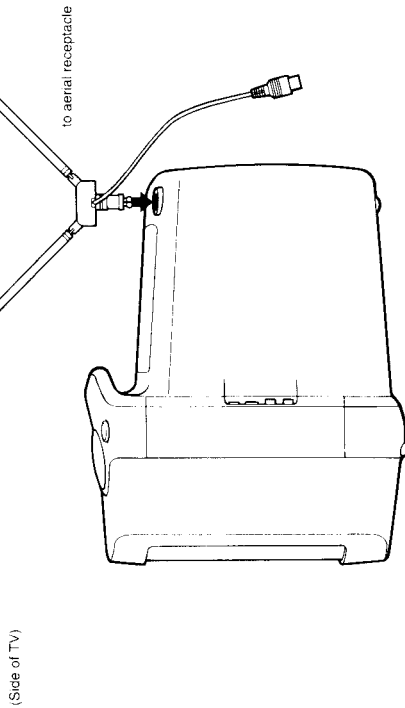
Press to switch between PAL and SECAM colour systems while in the B/G broadcasting system.


B/G (PAL) → B/G (SECAM)

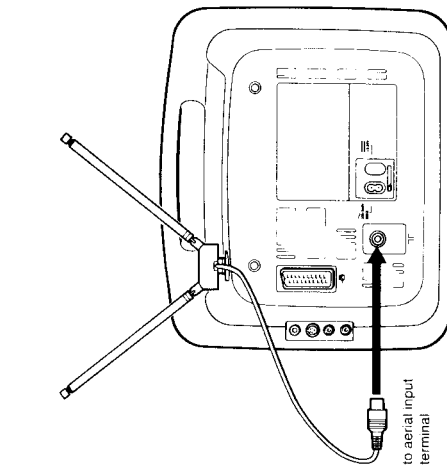


Attaching the telescopic aerial (supplied)

1 Insert the base of the aerial into the receptacle at the top of the TV, making sure it is inserted completely.



 Attach the aerial connector plug to the aerial input terminal (rear of TV).



Note
To receive cable TV, contact your local cable company for cable connection.

Presetting Channels

Presetting channels directly

To continue searching without presetting a tuned-in channel

Press manual fine tuning +/- again.

To clear a programme position

While pressing the shift button,

press **Cw**. The programme position will be cleared, and the channel frequency number "00" will be selected.

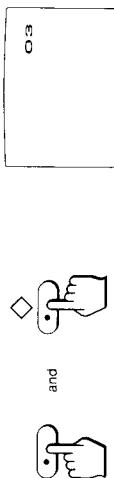
To exit preset mode

While pressing the shift button, press **↵**.

3 While pressing the shift button, press manual fine tuning +/- to search for channels forward or backward automatically.
The TV will search for available channels, beginning with the lowest available frequency number (VHF-UHF/CATV [hyper-band]), and stop when a channel is tuned in.



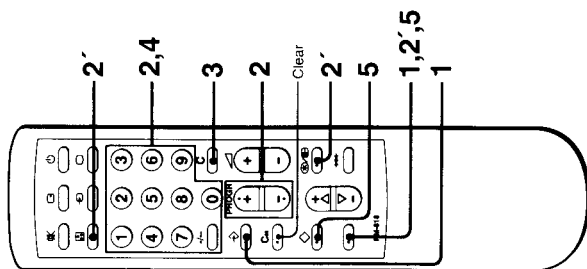
4 While pressing the shift button, press **↵** to preset the channel which is tuned in.



The channel is now preset and you will return to TV mode automatically.

To preset other channels

Repeat steps 1 – 4.



Presetting channels

GB

When you know the number of the channel you want to preset, follow the steps below to preset channels directly. For example, preset channel 3 onto position number 1.

1 While pressing the shift button, press **↵** to enter preset mode.



2 Press **PROG** +/- on the Remote Commander, or press 1 to select position number 1.



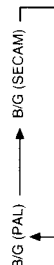
Note

To select a double-digit number with the 0 – 9 buttons, first press **↵**. For example, to select 23, press **↵**, 2 and 3.

2' While pressing the shift button, press **↵** to select the broadcasting (colour) system for your area. Each time you press, the systems change as shown below.



Press **↵** to switch between PAL and SECAM colour systems while in the B/G broadcasting system.



Presetting channels

To clear a programme position
While pressing the shift button, press **C**.

To exit preset mode
While pressing the shift button, press **→**.

3 Press **C** to select the mode you want to preset. Press once to select regular TV mode; press twice to select cable TV mode.

TV mode

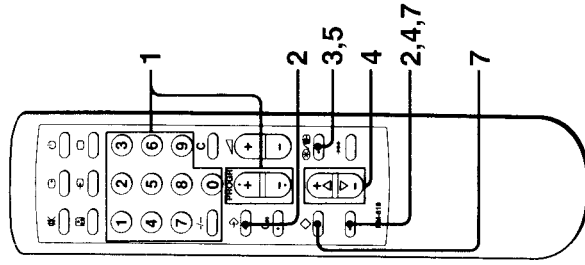
Cable TV mode

4 Press 0 and 3 to tune in channel 3 (you must press 0).

5 While pressing the shift button, press **◊** to preset the channel.

The channel is now preset and you have returned to TV mode

To preset other channels
Repeat steps 1 – 5.



Presetting channels

GB

You can identify each programme position with a label of up to five characters to help you remember your preset channels. The label will appear every time the position number is displayed.

For example, label programme position 8 as "NEWS1".

1 Press **PROGR +/-** on the Remote Commander, or press 8 to select position number 8.

2 While pressing the shift button, press **→** to enter preset mode.

3 Press **◊**.

The five label spaces will appear.

4 While pressing the shift button, press manual fine tuning +/- to select the letter "N".

(Numbers, letters of the alphabet and " " (blank space) will appear sequentially each time you press manual fine tuning +/-.)

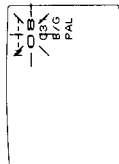
Presetting Channels

To exit label mode

While pressing the shift button, press \diamond .

5

Press N to set the first character "N".

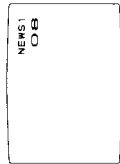
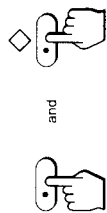


6

Repeat steps 4 and 5 to set the E, W, S and 1.

7

While pressing the shift button, press \diamond to store the label.
You will return to TV mode automatically.



To set other labels
Repeat steps 1 – 7.

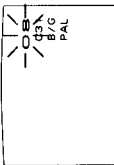
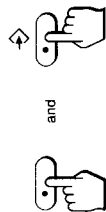
Skipping programme positions

By following the steps below, you can set the TV to skip unused programme position numbers when using PROGR +/- . You can select the skipped numbers by using the 0 – 9 buttons.

For example, set the TV to skip position number 5.

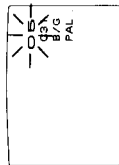
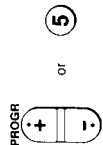
1

While pressing the shift button, press \rightarrow to enter preset mode.



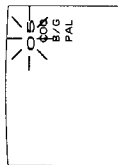
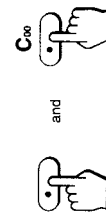
2

Press PROGR +/- on the Remote Commander, or press 5 to select position number 5.



3

While pressing the shift button, press C_{00} .
The channel frequency number "00" will be selected.



Presetting channels

GB

4 While pressing the shift button, press \diamond to set the position to be skipped. You will return to TV mode automatically. The next time you press **PROGR +/-**, position 5 will be skipped.



To skip other channels
Repeat steps 1 ~ 4.

To cancel the skip setting
Preset a channel onto the position number, following the steps on pp. 40, 41 or 42, 43.

To exit skip mode

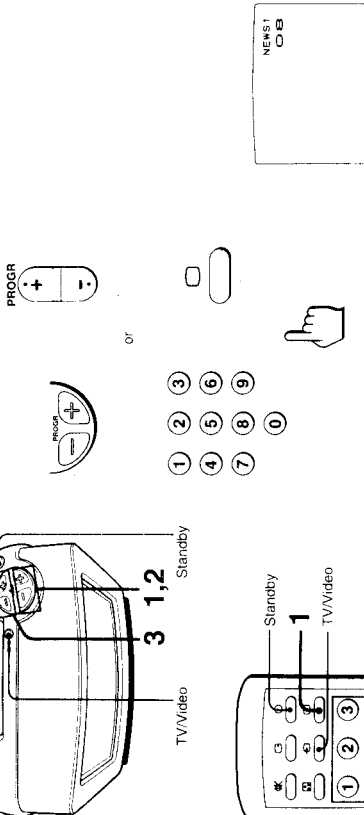
While pressing the shift button, press \rightarrow .

Presetting channels

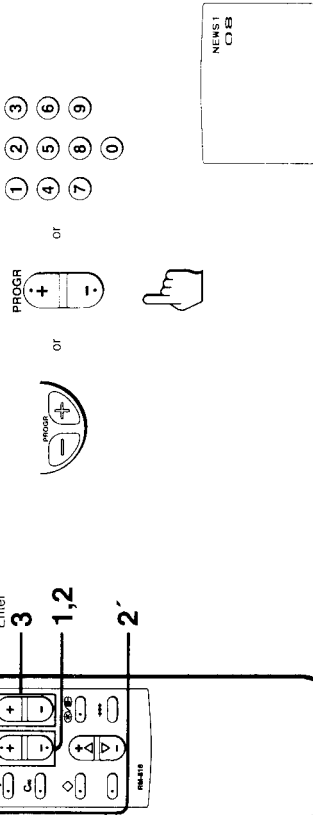
GB

Preset channels first, following the instructions on pp. 40 ~ 47.

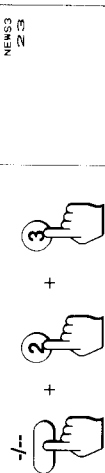
1 Press **PROGR +/-** on the TV or Remote Commander, or press the 0 ~ 9 buttons or TV button on the Remote Commander to turn the TV on.



2 Press **PROGR +/-** on the TV or Remote Commander, or press the 0 ~ 9 buttons to select the programme you want to watch.

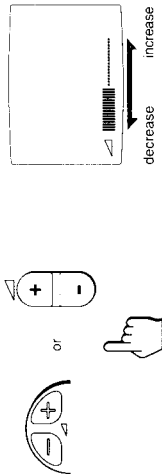


2' Press **-/-** first to select a double-digit number. For example, to select programme number 23, press **-/-**, 2 and 3.



Adjusting the Picture

3 Press \triangle / ∇ on the TV or Remote Commander to adjust the volume.



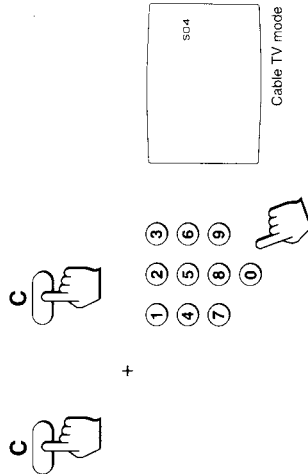
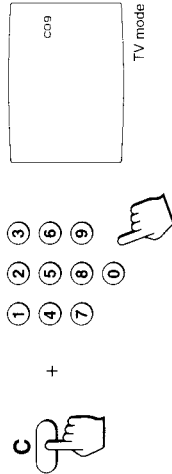
Press + to increase the volume.
Press - to decrease the volume.

To tune in a channel temporarily

If you know the channel frequency number, you can tune in a channel temporarily, without presetting.

Press **C** to select the mode you want to watch. (Press once to select regular TV mode; press twice to select cable TV mode.) Then press the 0 - 9 buttons to select the channel.

The channel will be received, but it is not preset to any position number.



Note
To select a double-digi number, press ∇ before pressing the 0 - 9 buttons.

To view the input from connected video equipment

Press \square / \triangle or ∇ to select the video input mode. **1** (AV 1), **2** (RGB), **3** (AV 2), **4** (S input) and TV modes will be selected in sequence. For further details, see pages 52 - 55.

To listen through a headphone

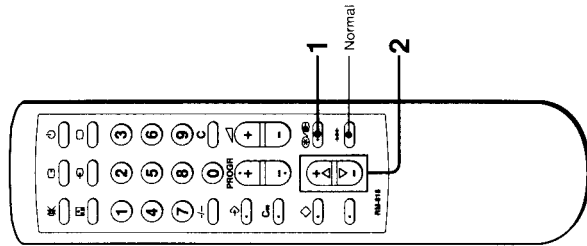
Connect a headphone (not supplied) to ∇ (the headphone jack) at the side of the TV (page 35).

To turn off the TV

Press ∇ on the TV or Remote Commander to turn the TV to standby mode.
To turn the power off completely, disconnect the power cord.

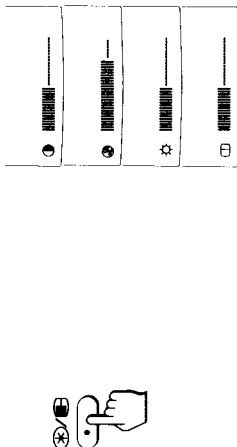
Watching TV programmes

GB

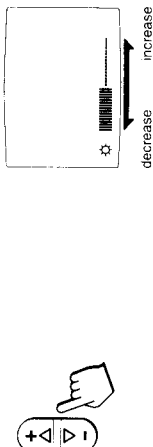


Use the picture adjustment feature to adjust the TV or video input picture to your taste.

1 Press ∇ / \triangle to enter picture adjustment mode. Press repeatedly to select the quality you want to adjust. (Picture, colour, bright, hue [NTSC colour system only] and sharpness are selected in sequence.)



2 Press picture adjustment \pm to make the adjustment.



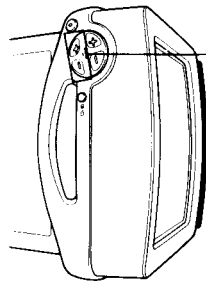
Picture quality	Press - button	Press + button
1 (picture)	To decrease picture contrast with soft colour	To increase picture contrast with vivid colour
2 (colour)	To decrease colour intensity	To increase colour intensity
3 (bright)	To decrease brightness	To increase brightness
4 (hue) (NTSC only)	Skin tones become purplish	Skin tones become greenish
5 (sharpness)	To decrease sharpness	To increase sharpness

The display will disappear automatically after a few seconds, if you do not press any buttons.

To restore the original settings

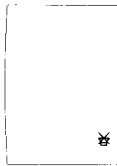
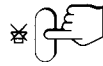
Press ∇ / \triangle
All the qualities will be restored to their original factory-set levels.

Using Other Convenient Features



Muting the sound

Press **Mute** to mute the sound.
The display **M** will appear on the screen.

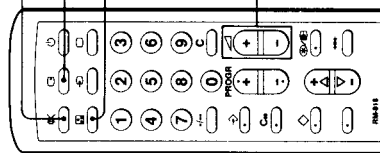


Volume +/-

Mute

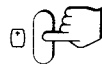
Display

Colour System

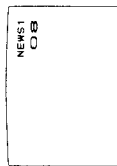


Volume +/-

Adjusting the picture Using other convenient features



To cancel the display
Press **Display** again.



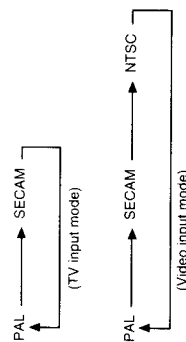
To restore the sound
Press **Mute** again, or press **Volume +/-** on the TV or Remote Commander.

Keeping the input mode displayed

Press **Input** to display the current input modes.

Changing colour systems

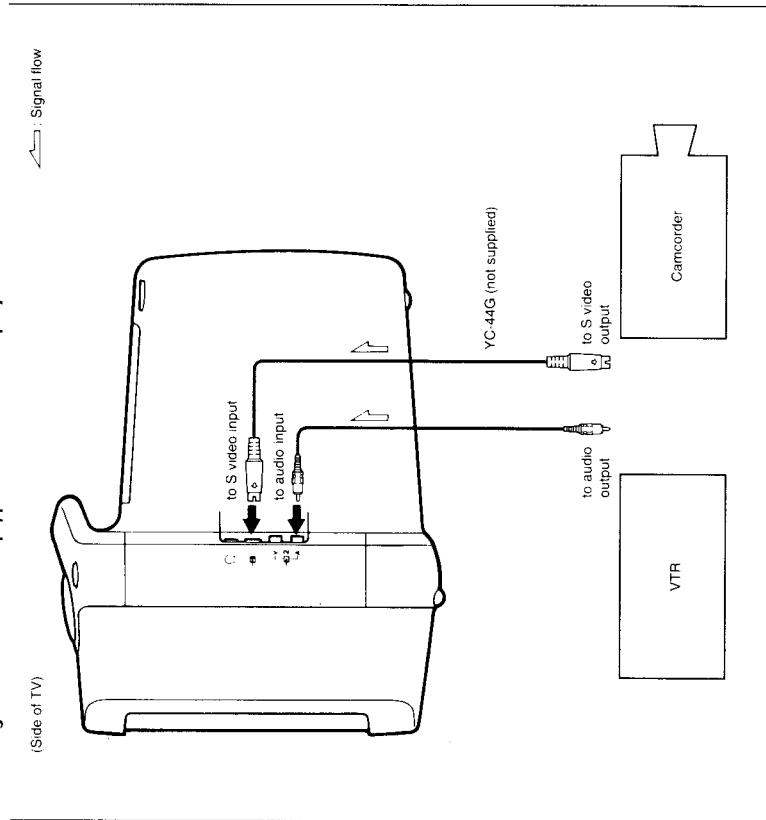
You can improve the colour reception by selecting the colour system suitable for your area. Each time you press **Colour**, the colour system will change as shown below.



GB

Chapter 3: Making Other Connections Connecting Optional Equipment

Connecting a VTR or Camcorder equipped with an S video output jack



Notes

- Before connecting, be sure to turn off all equipment.
- Be sure to fully insert the plugs into the jacks. A loose connection may cause hum and noise.
- You can watch the image from a VTR by connecting through the "I/F" terminal at the rear of the TV. In this case, press **Input** to select TV mode, and then select Channel 0.

Operating your equipment

1 Select S video input mode by pressing **Input** on the TV or **Input** on the Remote Commander until **AV1** appears on the screen. Each time you press, the screen display will change as follows.



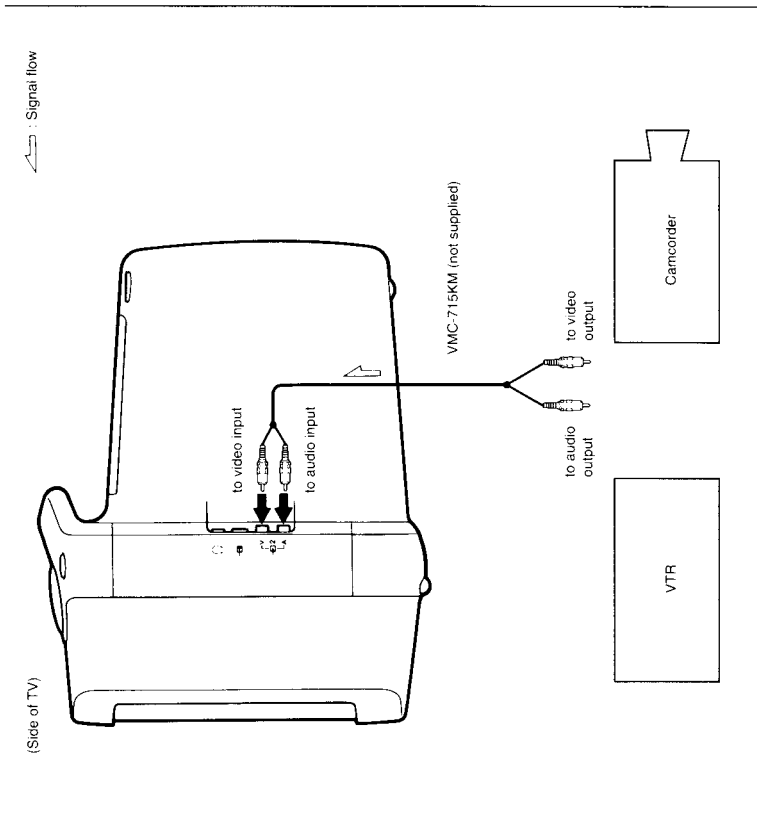
2 Set the equipment to playback mode.

To return to TV mode

Press **Input** on the Remote Commander to return directly to TV mode.

Connecting Optional Equipment

Connecting a VTR or Camcorder not equipped with an S video output jack



Connecting optional equipment

Operating your equipment

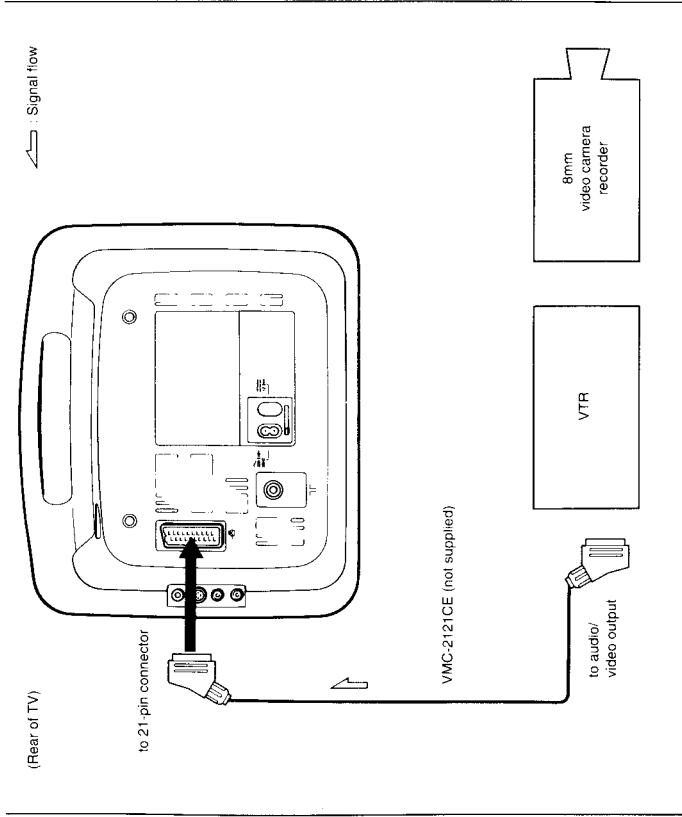
- 1 Select AV 2 mode by pressing \square/\oplus on the TV or \oplus on the Remote Commander until $\oplus 2$ appears on the screen.

- 2 Set the equipment to playback mode.

To return to TV mode

Press \square on the Remote Commander to return directly to TV mode.

Connecting video equipment using the 21-pin connector



Operating your equipment

- 1 Select AV 1 mode by turning on the equipment.


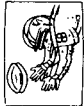
- 2 Set the equipment to playback mode.

To return to TV mode

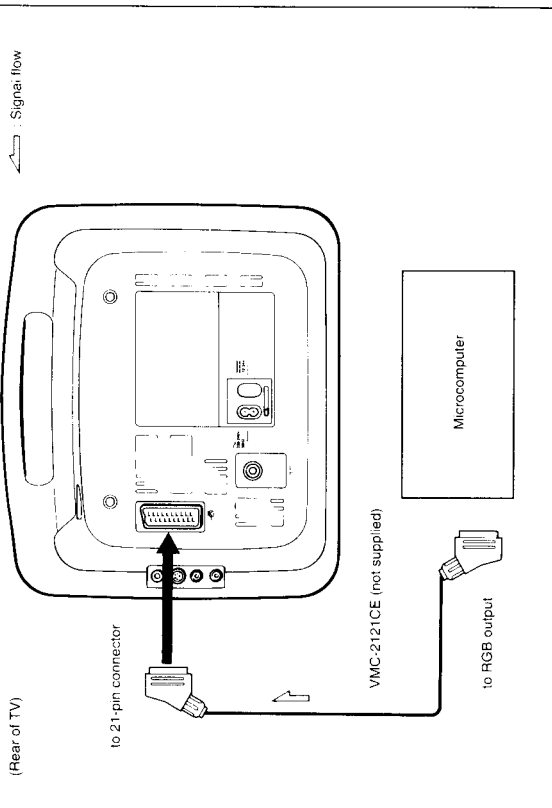
Press \square on the Remote Commander to return directly to TV mode, or turn the video equipment off.

Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> Plug the TV in, and check the power connection. Press PROGR +/- on the TV or press PROGR +/- or the 0 - 9 buttons on the Remote Commander. Check the aerial connection. Check the TV/video input setting. Turn the TV off for 3 or 4 seconds and then turn it on again.
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> Adjust the picture with the picture adjustment button (page 50). Adjust the telescopic aerial.
Good picture, no sound	<ul style="list-style-type: none"> Press ⏮ on the TV or Remote Commander. Disconnect the headphones. If 🔊 is displayed on the screen, press 🔊 or ⏮ +/-.
No colour for colour programmes	<ul style="list-style-type: none"> Adjust the colour with the picture adjustment button. Adjust the telescopic aerial. Press 📺 on the Remote Commander to change colour systems.
Show and noise only	<ul style="list-style-type: none"> Check that it is an active or correct channel. Check the cable setting. Check aerial/cable connections.
	Dotted lines or stripes This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
	Double images or ghosts Reflections from nearby mountains or buildings often cause this problem. Connecting CATV cable may improve the picture.
Try another channel. It could be station trouble.	

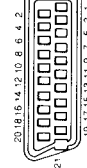
Connecting a microcomputer



To view the input from the microcomputer
Select RGB input mode by pressing **⏮** on the TV or **📺** on the Remote Commander until **📺** appears on the screen.

- Notes**
- When RGB-type equipment (like a microcomputer) is connected, you can adjust **📺** (picture) and **🔊** (bright), but not **🌈** (hue), **🔊** (colour) or **📺** (sharpness) (see page 50).
 - If you connect a microcomputer or anything else to the 21-pin outlet, be sure to turn the connected equipment off when watching images coming in through the **📺** (S video) input jack. Otherwise, there may be interference to the picture being displayed.

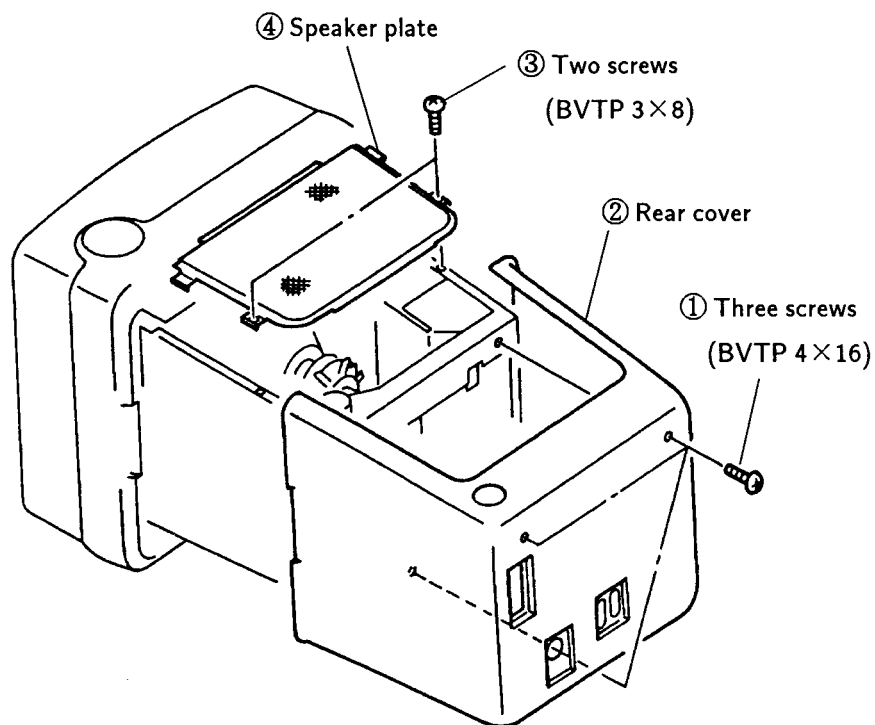
21 pin Euro Connector Configuration



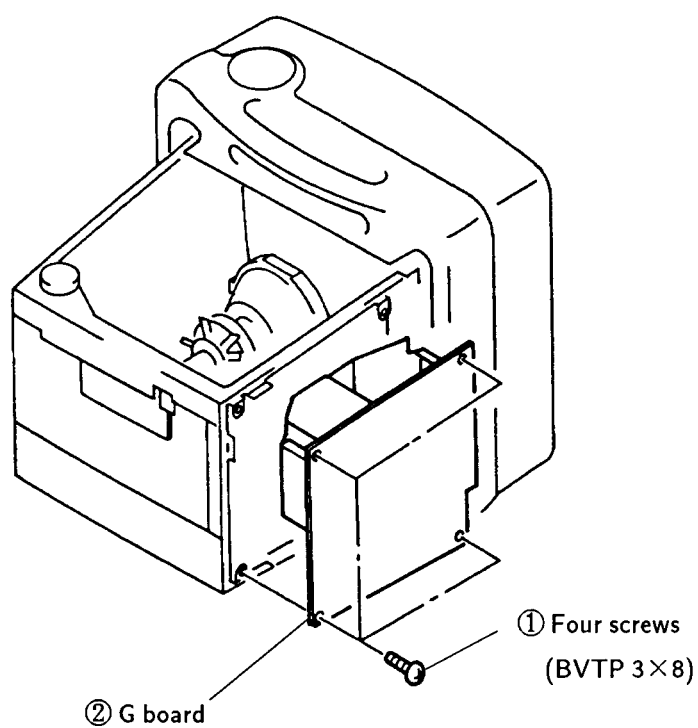
Connecting optional equipment

SECTION 2 DISASSEMBLY

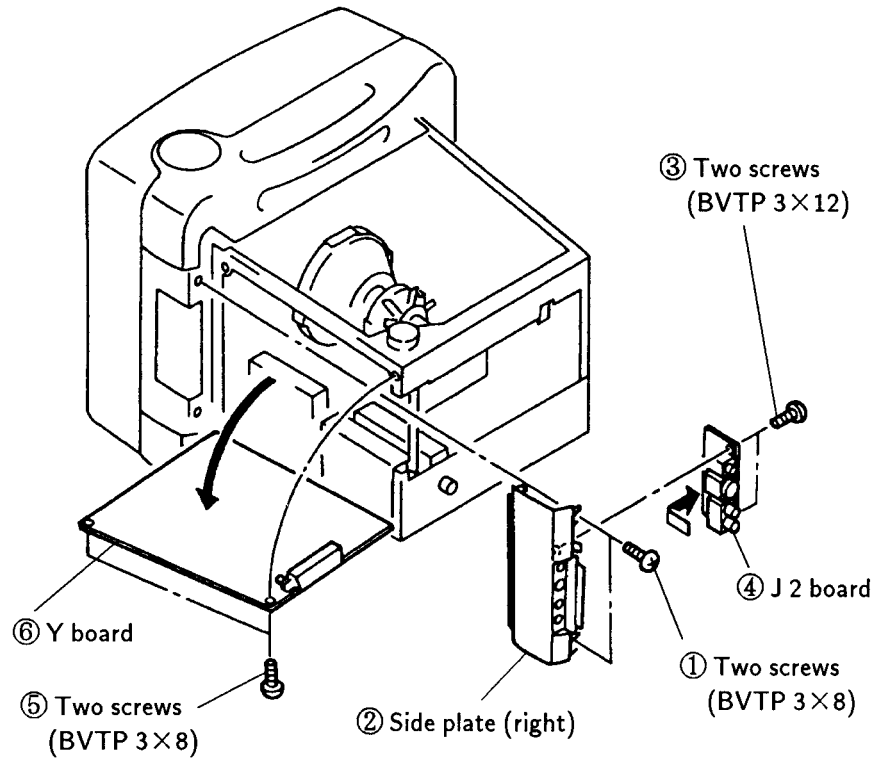
2-1. REAR COVER REMOVAL



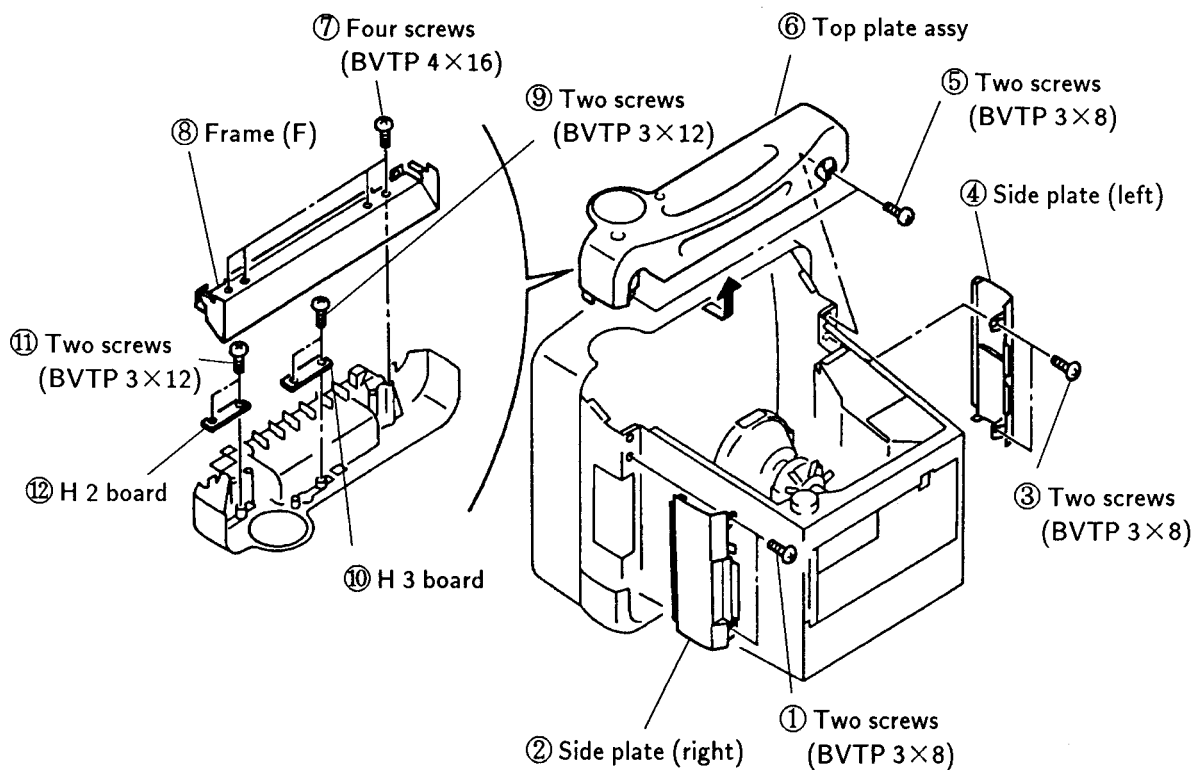
2-2. G BOARD REMOVAL



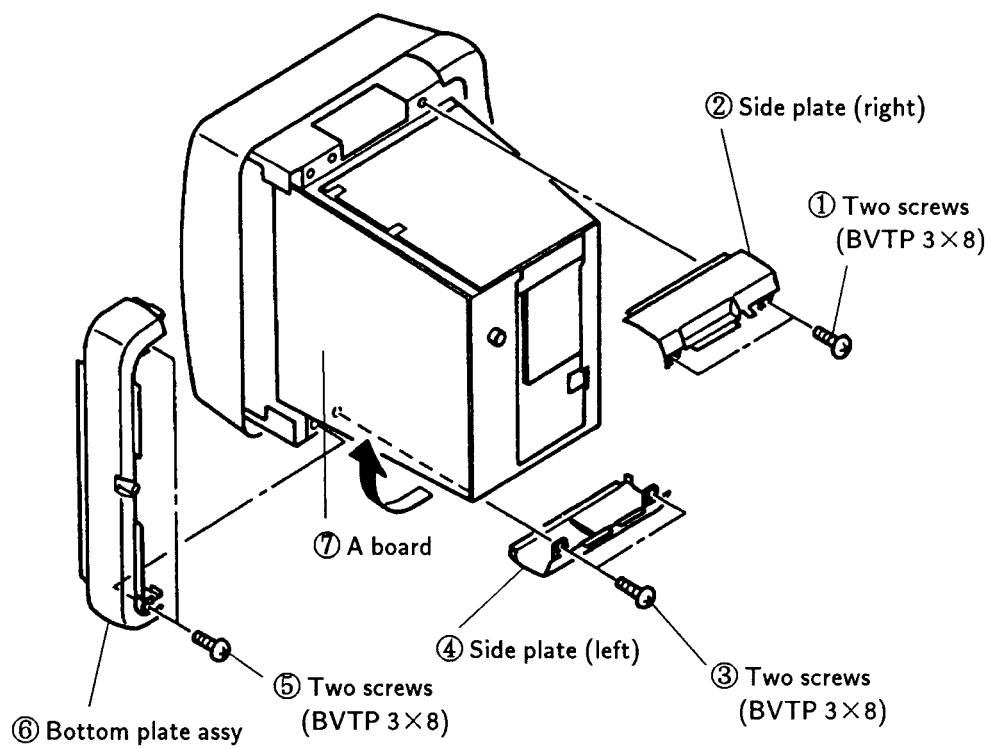
2-3. J 2 AND Y BOARD REMOVAL



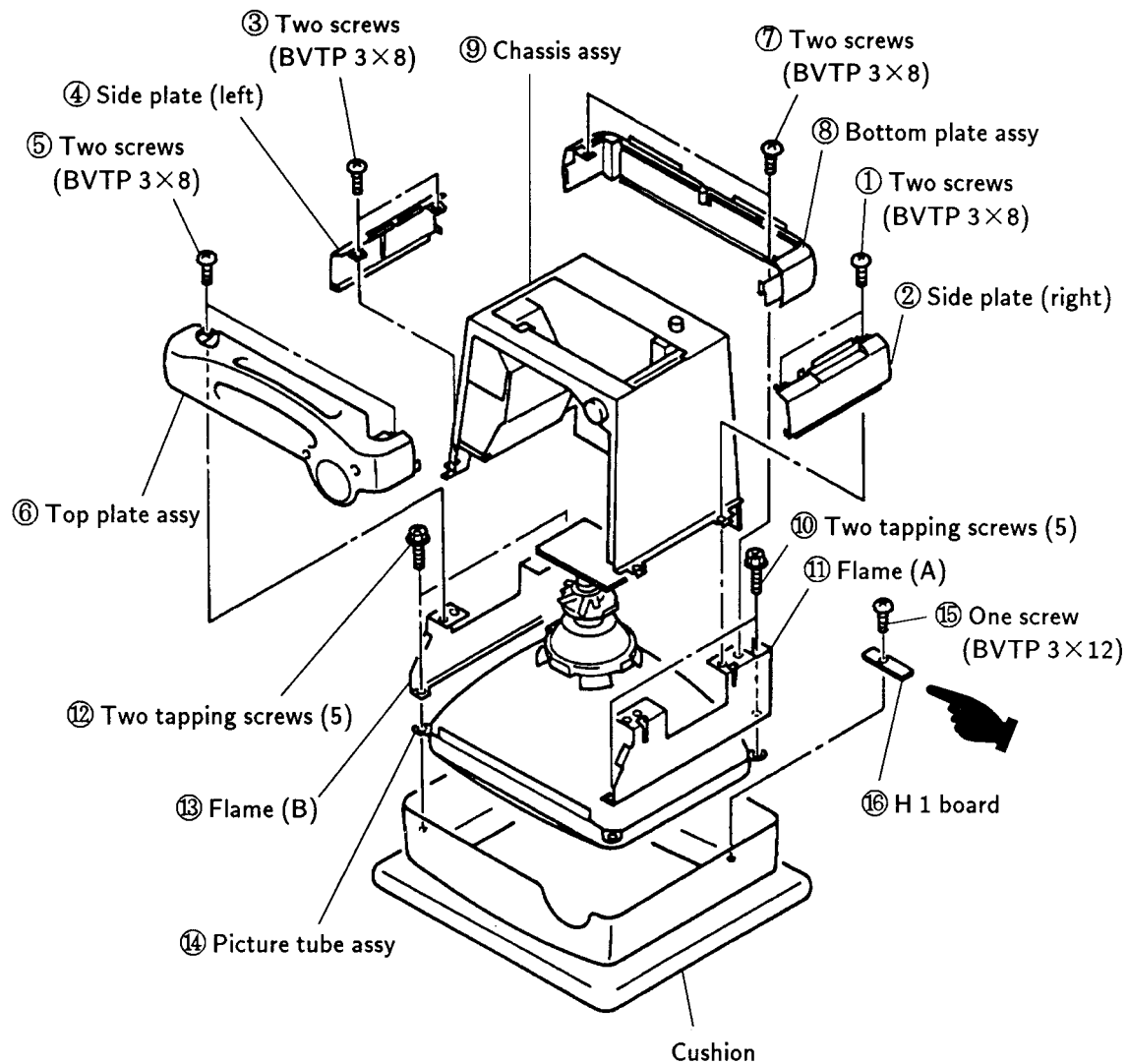
2-4. H 2 AND H 3 BOARD REMOVAL



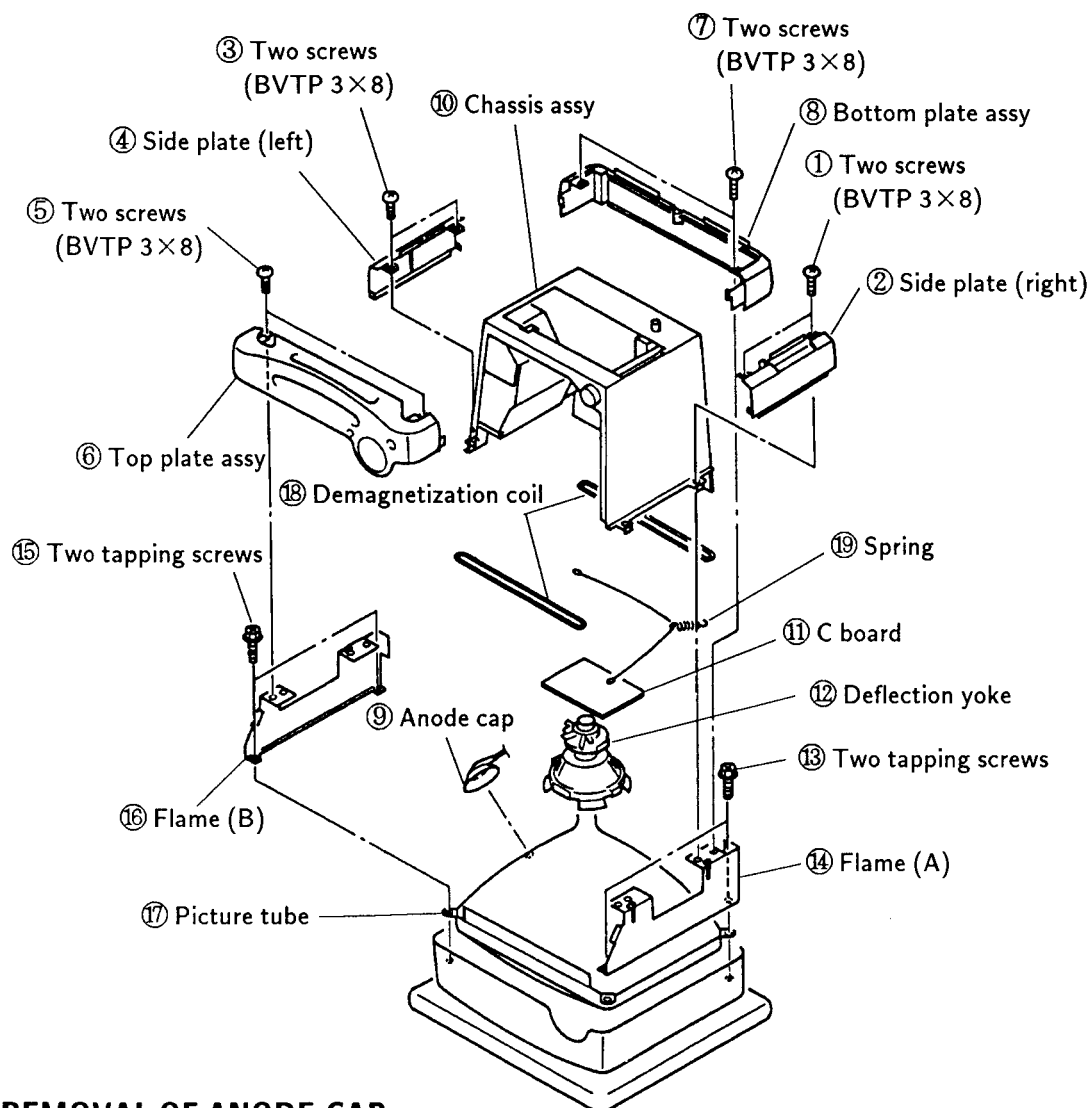
2-5. SERVICE POSITION



2-6. H 1 BOARD REMOVAL



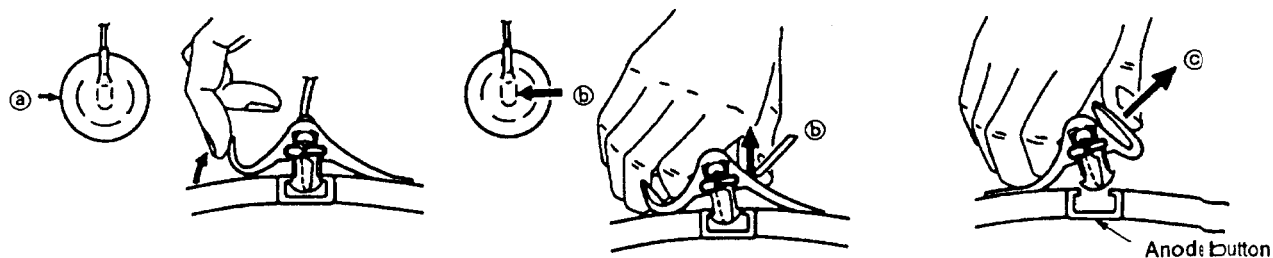
2-7. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

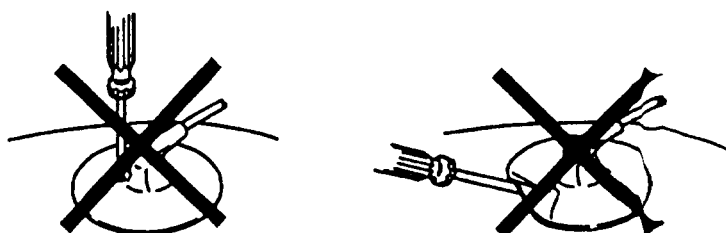
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- Don't hurt the surface of anode-caps with sharp shaped material!
- Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted. The controls and switch below should be set as follows unless otherwise noted :

- CONTRAST control..... 80%(or Normal by commander)
- ⚙ BRIGHTNESS control..... 50%

Preparation:

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.

CONTRAST	} normal
BRIGHTNESS	
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly.
(Fig.3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and green confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

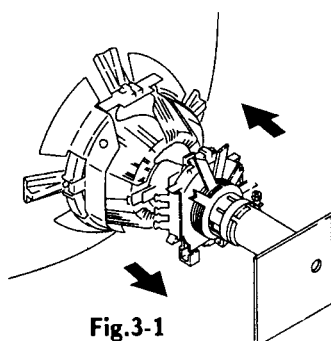


Fig.3-1

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

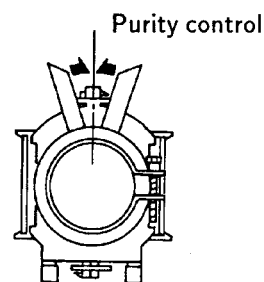


Fig.3-2

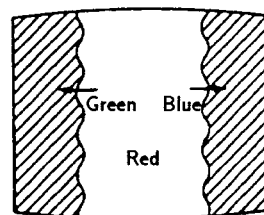


Fig.3-3

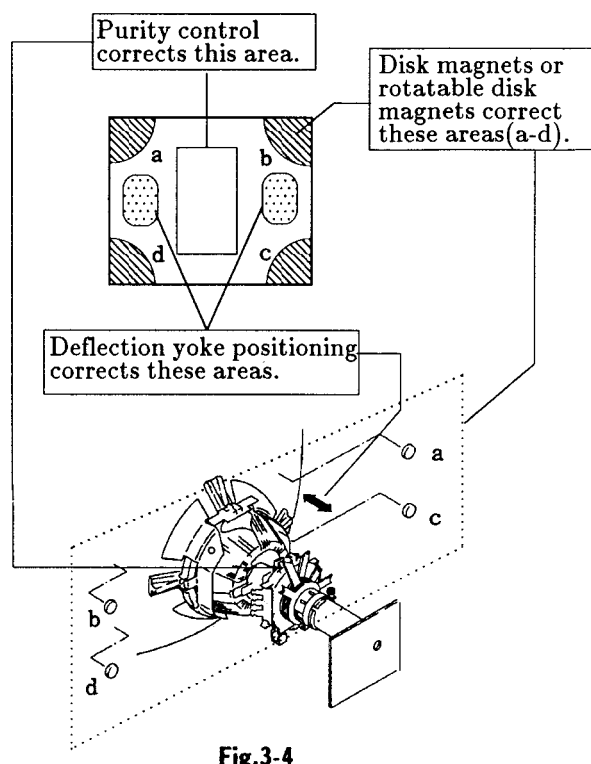


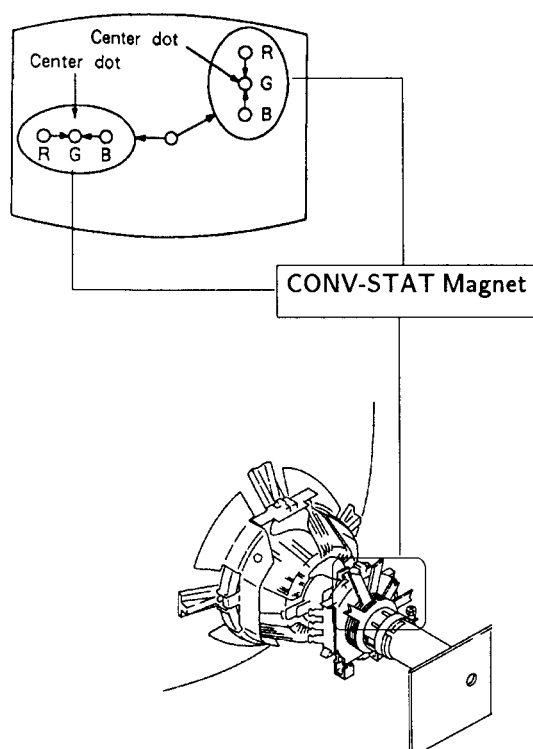
Fig.3-4

3-2. CONVERGENCE

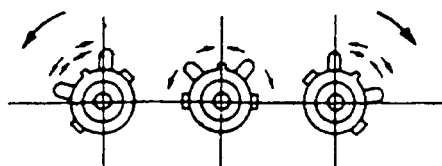
Preparation:

- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

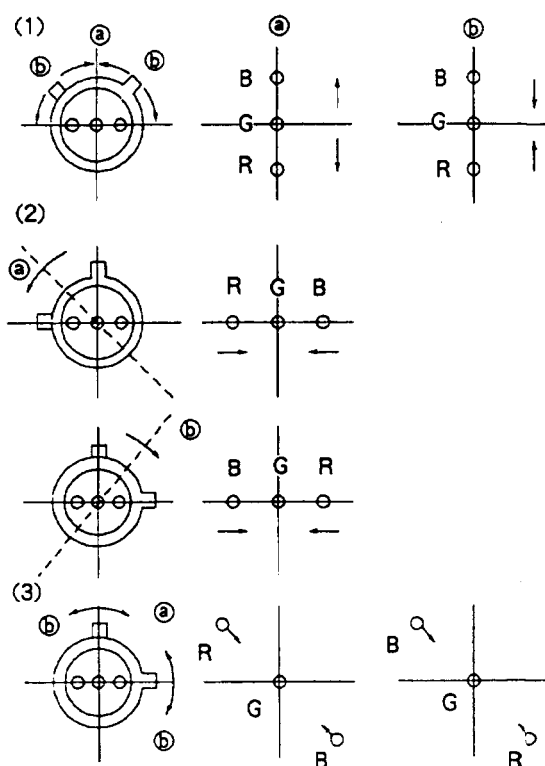
(1) Horizontal and Vertical Static Convergence



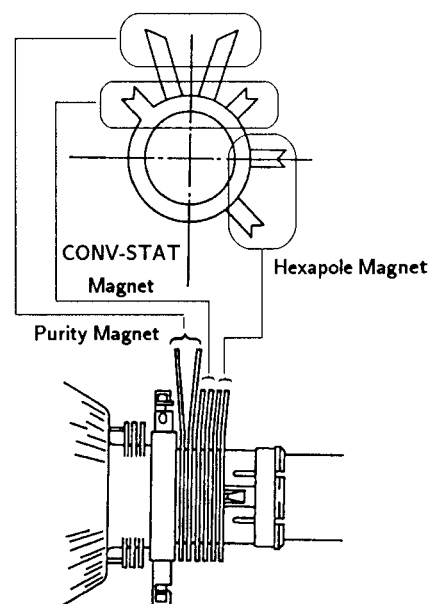
1. Adjust CONV-STAT Magnet to coincide red, green blue dots on the center of screen.
- Tilt the CONV-STAT magnet and adjust static convergence to open or close the CONV-STAT magnet.



2. When the CONV-STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

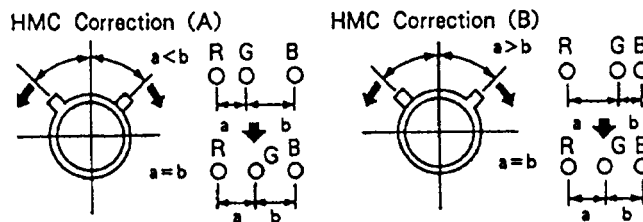


* IF the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.



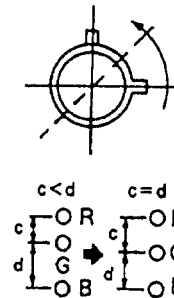
● HMC and VMC correction for BMC (6-pole) magnet.

1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

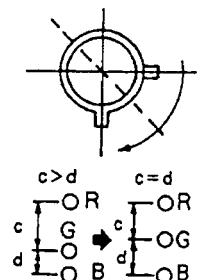


2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

VMC Correction (A)



VMC Correction (B)



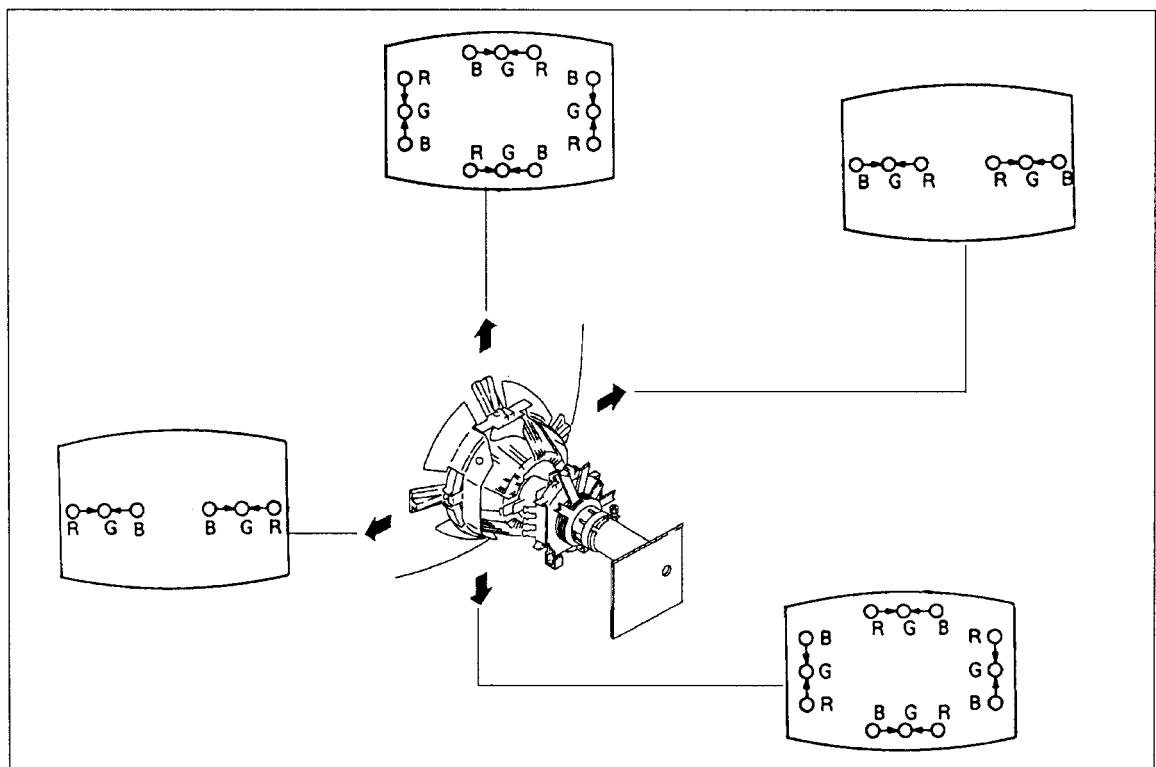
(2) Dynamic Convergence Adjustment

Preparation:

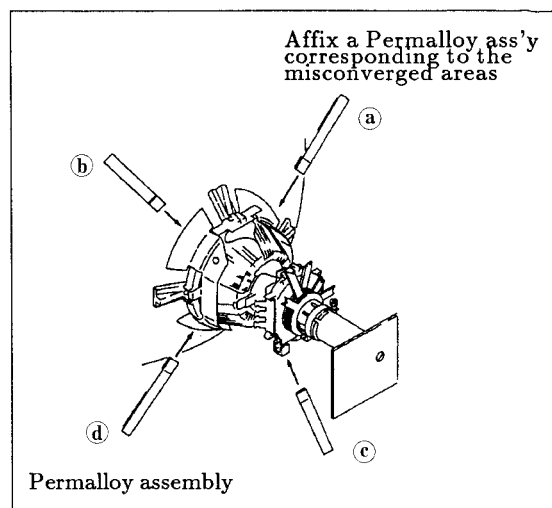
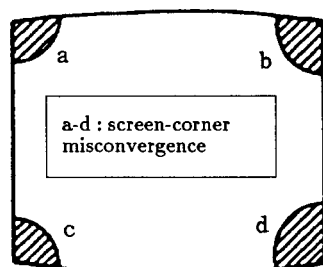
- Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.

3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

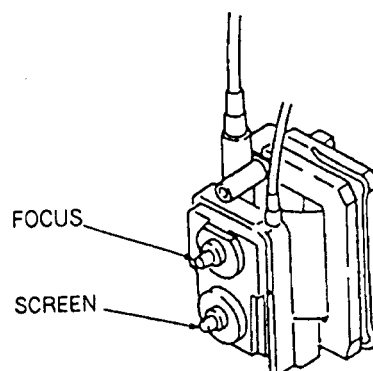


(3) Screen-corner Convergence



3-3. FOCUS

1. Input a monoscope signal.
CONTRAST
BRIGHTNESS } normal
2. Adjust FOCUS control for a best picture at the center and both sides of the screen.



3-4. SCREEN (G 2) and WHITE BALANCE AUTOMATIC ADJUSTMENT

(Adjustment with remote commander in service mode)

(1) G 2 adjustment screen

1. Set picture and brightness to STANDARD.
2. Apply external voltage 150 VDC to each of the red, green, and blue cathodes.
3. Adjust the G 2 control knob to a position immediately before the retrace line on the screen disappears.

(2) White balance adjustment (See the table of service items)

Call item NOs. 13-18 in service mode and adjust each.

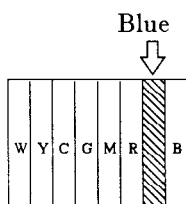
1. Receive the color bar place the set into service mode.
2. Set picture to MINIMUM and brightness to STANDARD.
3. Set cut-off (red, green and blue) to MINIMUM and drive (green and blue) to CENTER.

Cut-off

DRIVE

No	Item name	Data	No	Item name	Data
16	G BKG	64	13	R BKG	100
17	B BKG		14	G BKG	
18	R BKG		15	B BKG	

4. Adjust brightness compensation so that the blue stripe section of the color pattern shines dimly.



5. Switch the pattern generator signal to ALL WHITE.
6. Adjust white balance with each cut-off.
7. Set picture to MAXIMUM and adjust white balance with the green and blue drive.
8. Repeat the above until white balance between MINIMUM and MAXIMUM of picture is obtained.
9. Switch the pattern generator signal to the color pattern signal.
10. Adjust brightness compensation so that the blue stripe section on the screen shines dimly when picture is set to MINIMUM.

3-5. ADJUSTMENT PROCEDURE

(Reading memory contents)

- (1) Confirm that the set has started up in the user mode. (CB) . Press the picture quality adjustment key \leftrightarrow to leave the set in normal state. Turn off the power the set.
- (2) Turn on the power to the set while holding down the service switch located on the rear panel of set. Confirm that SERVICE is indicated on the screen.
- (3) press the \swarrow key. Confirm that indication R on the upper right corner of the screen blinks.
- (4) Press the C key while indication R is blinking. Thus, the contents of NVM are read in.

Note : If IC 306 is a new one (e.g., entirely new one immediately after replacement), do not execute steps (3) and (4) above.

3-6. ADJUSTMENT PROCEDURE

(Writing the contents of adjustment into memory)

When adjustments are completed.

- (1) Press the \times key Confirm that indication W on the upper right corner of the screen blinks.
- (2) Press the C key while indication W is blinking. W stops blinking and the STBY LED lights. Writing to memory is completed when W and LED go out.

NO	Item name	Data
13	R DRIVE	0~127
14	G DRIVE	0~127
15	B DRIVE	0~127
16	G BKG	0~255
17	B BKG	0~255
18	R BKS	0~255

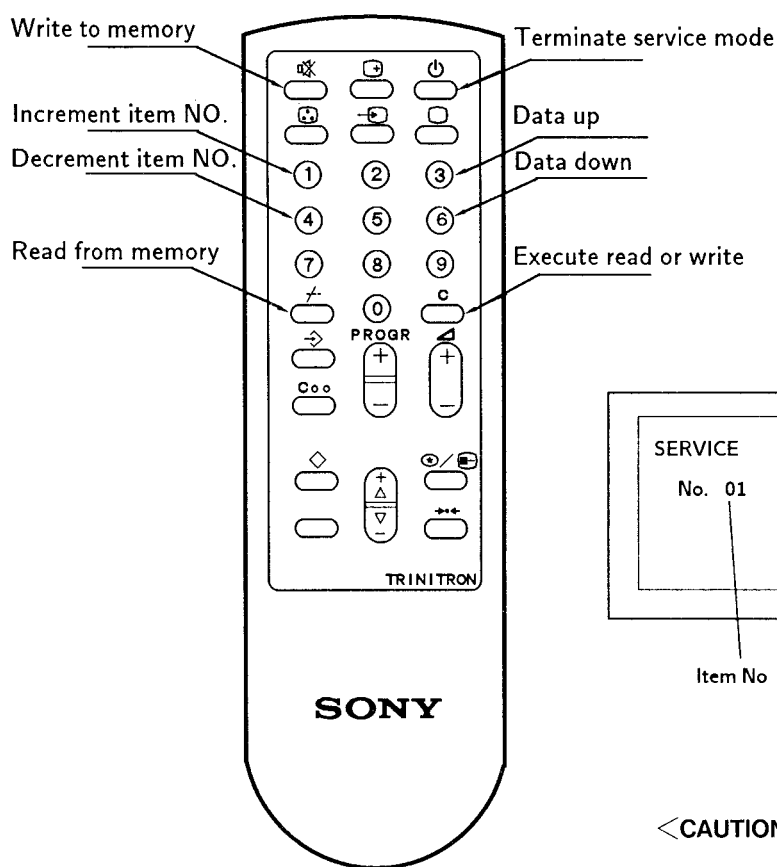
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. COMMANDER OPERATION IN SERVICE MODE

[Electrical adjustment in service mode]

Electrical adjustments for service with this type of model can be accomplished by using the remote commander RM-818 included with the set.

Figure : Key assignments in service mode



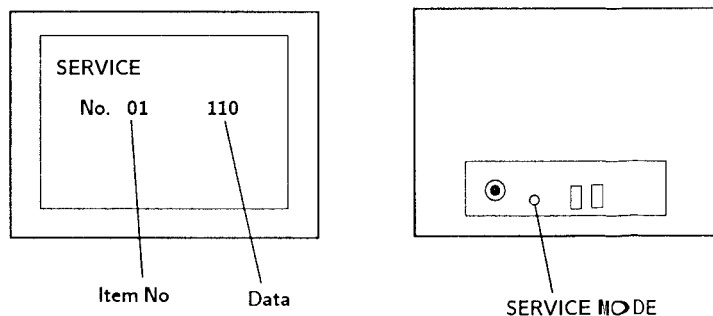
(1) Unusable keys

- ① 2, 5, 7, 8, 9, 0 among numeric keys
② \rightarrow C₀₀ \diamond , \odot , \boxplus (+/-) These keys are asserted when the key is pressed while holding down the \square key.

(2) Usable keys (incl. those which do not change the meaning)

- ① \square
② \leftarrow , \square
③ \boxminus
④ PROG (+/-)
⑤ \boxminus , \boxplus (+/-)
⑥ \rightarrow
⑦ \triangle (+/-)

Screen in service mode

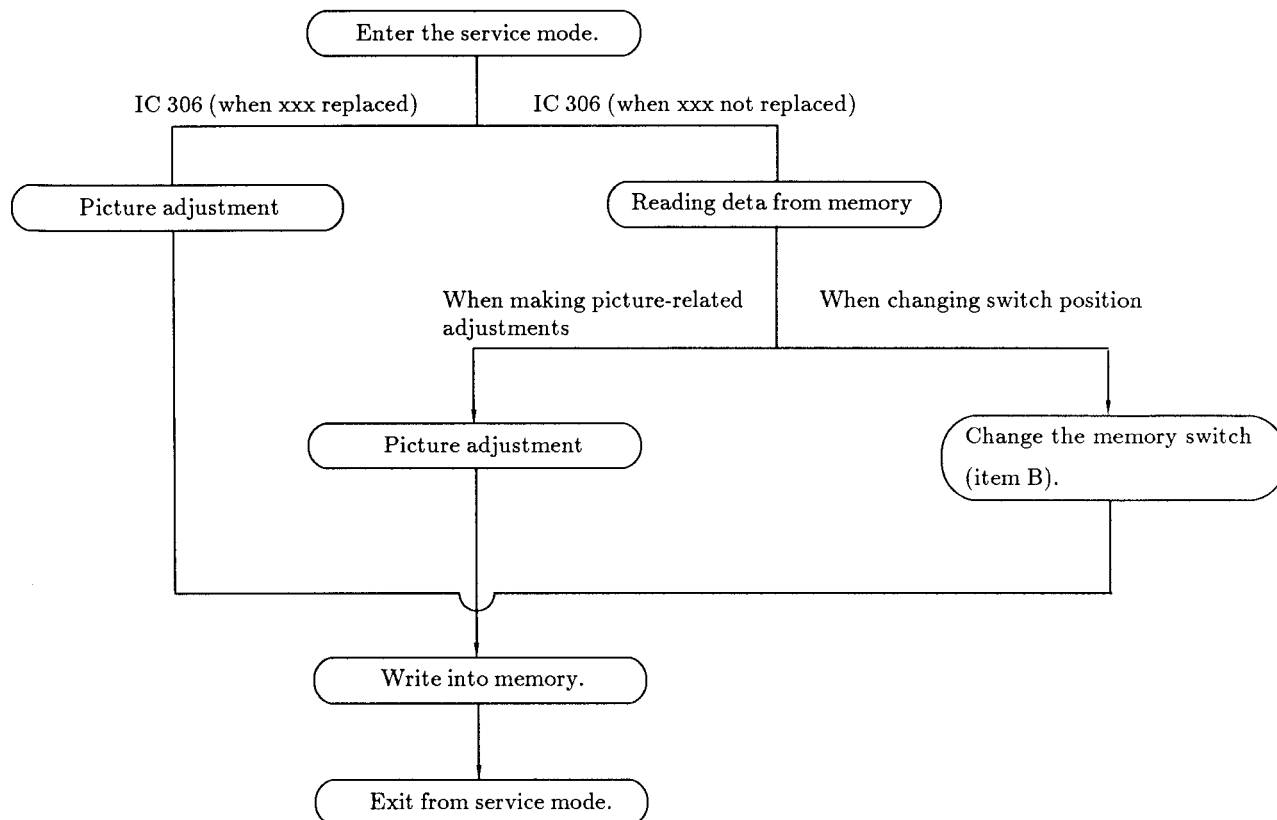


<CAUTION>

The service mode is used to prohibit the following.

- (1) Data writing in the non-signal condition.
- (2) Releasing the service mode when the power supply has been turned off with the commander.
(Be sure to turn off the main power supply of the unit before releasing.)
- (3) Power off during writing (while the LED is lit)
- (4) Switching of the color system during service item No.1 (VC O)
- (5) Data writing during the NTSC 443 mode.

How to adjust in service mode

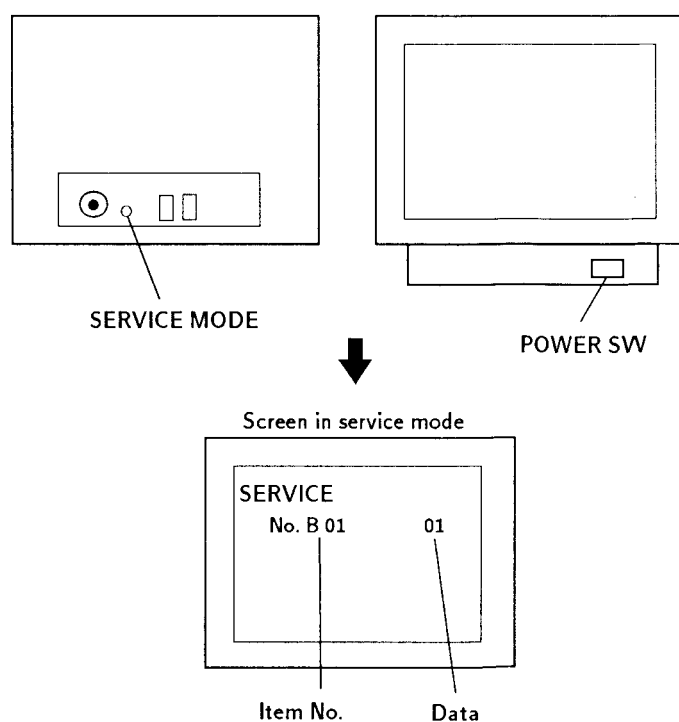


※ Note : Do not turn off the power before writing adjustment data into memory. If the power is off, your adjustment data cannot be stored in memory. Always be sure to write data into memory after making adjustments.

[Basic adjustment in service mode]

1. Entering the service mode

- ① Insert a narrow screw-driver into the hole located on the rear cover of the TV set. When this is done, the switch located at the back of the hole is pressed.
- ② While pressing the switch, plug the power cord of the TV into the AC outlet. (Or you may turn on the power of the TV from standby state by using the remote commander.) A message "SERVICE NO. 01 00" will be displayed in green on the screen as the unit enters the service mode.

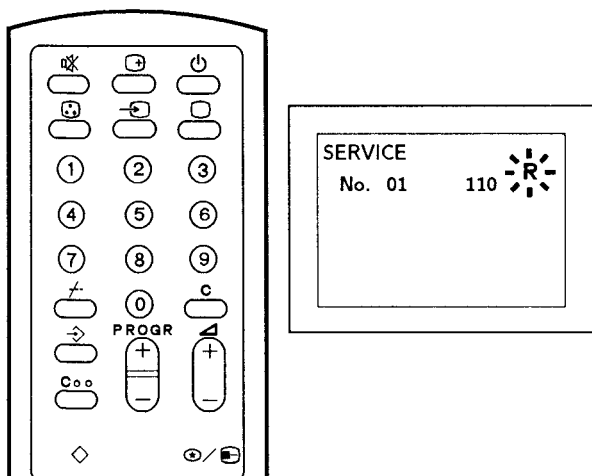


2. Reading data from memory

- ① Read the adjustment values of all items and switch-setting values from memory.

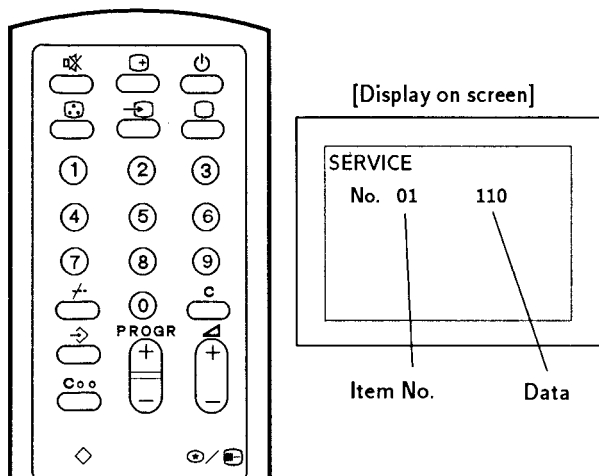
To do this, press the [F] button, then the [C] button on the remote commander. When [F] is pressed, the letter R blinks on the upper right corner of the screen. When [C] is pressed during this time, the letter R stops blinking and data read is terminated.

Note: When you replaced IC 306, do not read data from memory before writing new data.



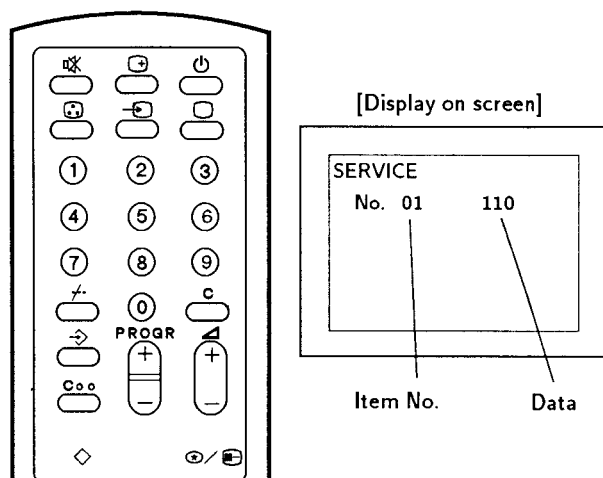
3. Adjusting picture quality

- ① Select one of item Nos. 01-29 that you want to be adjusted by using the remote commander buttons [1] and [4].
- ② Adjust picture quality using buttons [3] and [6] until the appropriate picture quality is obtained and the set values are satisfied.



4. Changing switch positions

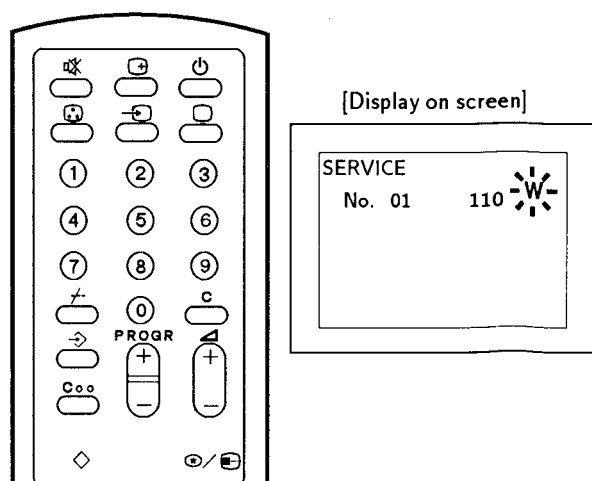
- ① Select one of item Nos. B 01-B 02 that you want to be changed by using the remote commander buttons [1] and [4].
- ② The internal switches can be changed over using buttons [3] and [6]. Normally, you specify standard values. (See the table of service items.)



5. Writing to memory

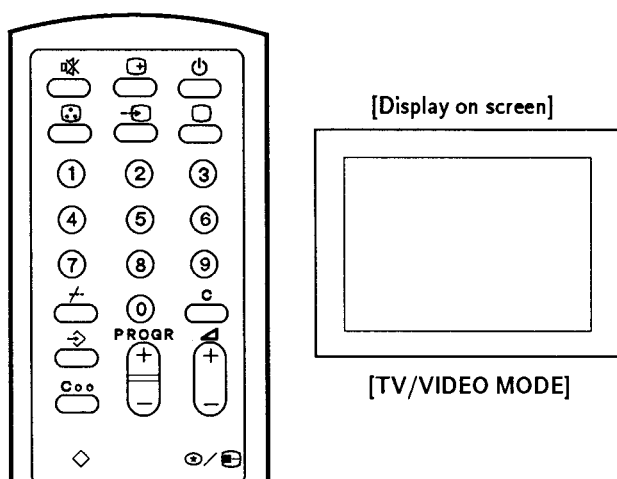
- ① After adjustment, adjust the switch-setting values, then write the adjustment data to memory using the [F] button. (Data cannot be written by only using the [F] button.)

Press the [C] button while the character ":" is blinking on the screen (within 3 seconds). It takes approximately 3 seconds from when the [C] button is pressed to when writing to memory is completed. Writing to memory is completed when the character ":" stops blinking and goes out.



6. Terminating service mode

- ① Unplug the power cord of the TV and plug it in again. When this is done, the indication of SERVICE MODE goes out and the unit enters normal TV mode.



4-2. A BORAD ADJUSTMENTS

RF AGC Adjustment

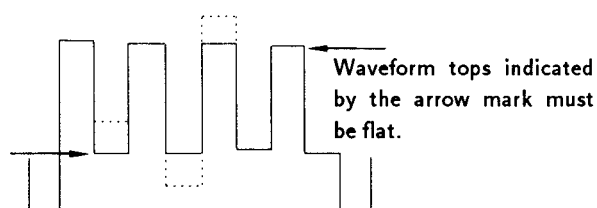
1. Receive the color bar signal. (RF signal)
2. Picture : 80%
3. Brightness : standard
4. Adjust the IF pack AGC knob until snow noise and cross modulation are eliminated.
5. Confirm the above in each channel.

VCO Adjustment

1. Receive the color bar signal and place the set into service mode.
2. Set a value with item 1 so that the screen beats.

SUB COLOR and SUB HUE Adjustments

1. Receive the color bar signal and place the set into service mode.
2. Connect an oscilloscope to the TP (blue output) of the circuit board C, then press the STANDARD button using the remote commander.
3. Next, adjust the oscilloscope waveform with item 19 and 20 until the waveform shown below is obtained. Then, set sub-color to a value three steps up.



NO	Item name
19	Sub hue
20	Sub color

Note :

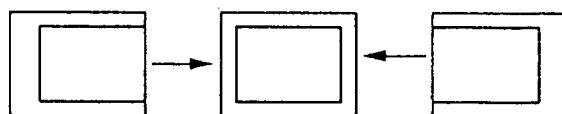
When sub-contrast, sub-hue or sub-color is adjusted, picture qualities in video 1 and video 2 are no longer STANDARD (independently stored in memory). Select video 1 and video 2 using the remote commander (TV/VIDEO) button, then press the (STANDARD) button for each.

Picture qualities in video 1 and video 2 can be made to STANDARD even when you set "channel selection , standad" with buttons (8) and (12) after writing data to memory.

ADJUSTING DEFLECTION

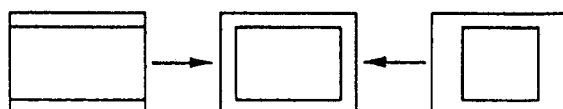
Horizontal position (item NO. 9) 0~31

H. CENT



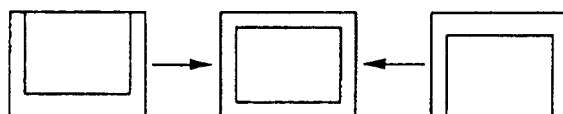
Horizontal amplitude (item NO. 10) 0~63

H. SIZE



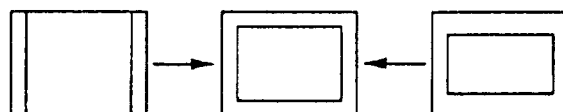
Vertical position (item NO. 2) 0~63

V. CENT



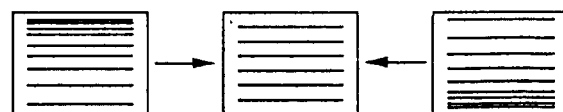
Vertical amplitude (item NOs. 3, 4) 0~255

V. SIZE



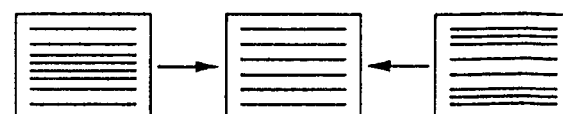
Vertical linearity (item NOs. 5, 6) L : 0~63, H : 0~63

V. ANGLE



Vertical character-S correction (item NOs. 7, 8)

L : 0~31, H : 0~255



• ITEM LIST

No.	Item name	Register name			Data range	Adjustment data			Remarks	Signal
		IC	LABEL	Bit length		PAL	SECAM	NTSC		
1	VCO	PVP	VCOA	8	(-128)0~(+127)255	ADJ		ADJ	Adjusted with VCO free-run	CB
2	V center	Microprocessor	PWM output	8	0~63	ADJ	←	ADJ	Dummy-IM bus adjustment	SP CB
3, 4	Note 1) V size H&L	DPU	H0L, H0H	8+8	L(0~15), H(0~255)	ADJ	←	ADJ	V amplitude	"
5, 6	Note 1) V linearity H&L	DPU	S1L, S1H	8+6	L(0~63), H(0~63)	ADJ	←	ADJ	V symmetry	"
7, 8	Note 1) V character-S correction H&L	DPU	S0L, S0H	8+8	L(0~31), H(0~255)	ADJ	←	ADJ	S correction	"
9	H center	DPU	SP	5	0~31	ADJ	←	ADJ		"
10	H size	Microprocessor	PWM output	8	0~63	ADJ	←	ADJ	Dummy-IM bus adjustment	"
11	H blanking	DPU	BP	6	0~63	←	←	←		"
12	ACC level	PVP	BA	6	0~63	←	←	←		CB
13	R drive	PVP	WR	7	0~127	ADJ	←	←	AMB to be turned off.	W/CB
14	G drive	PVP	WG	7	0~127	ADJ	←	←	"	"
15	B drive	PVP	WB	7	0~127	ADJ	←	←	"	"
16	G cut-off	PVP	CG	8	0~255	ADJ	←	←	"	"
17	B cut-off	PVP	CB	8	0~255	ADJ	←	←	"	"
18	R cut-off	PVP	CR	8	0~255	ADJ	←	←	"	"
19	Sub-hue 1	DTI	FSR 1, 2	8, 8		←		ADJ	Shared with hue when DTI is on.	CB
20	Sub-color 1	DTI	FSR 1, 2	8, 8		ADJ		ADJ	Shared with color when DTI is on.	"
21	Sub-bright	PVP	BR	8	0~255				Shared with bright (user controllable).	W
22	External RGB contrast	PVP	RGBC	6	0~63	←	←	←		CB
23	Y/C delay	PVP	LD	4	(-4) 0~(+4)8	←	←	←		SP CB
24	External RGB delay Y	DTI	LDA	9	0~511	←	←	←		
25	External RGB delay C	DTI	CDA	9	0~511	←	←	←		
26	Sub-hue 2	SPU	SR, SB	6, 6	0~63		←	←		CB
27	Sub-color 2	SPU	SR, SB	6, 6	0~63		←	←		"
28	DC offset R	SPU	OR	6	0~63		←	←		"
29	DC offset B	SPU	OB	6	0~63		←	←		"
B 01	Auto White Balance					0 : off (without IK pulse) 1 : off (IK pulse) 2 : Auto cut-off 3 : on				
B 02	DTI					0 : off 1 : on				

① ADJ : Must be adjusted for each set.

② ← : Must be treated as reference (fixed) value based on deviation between sets.

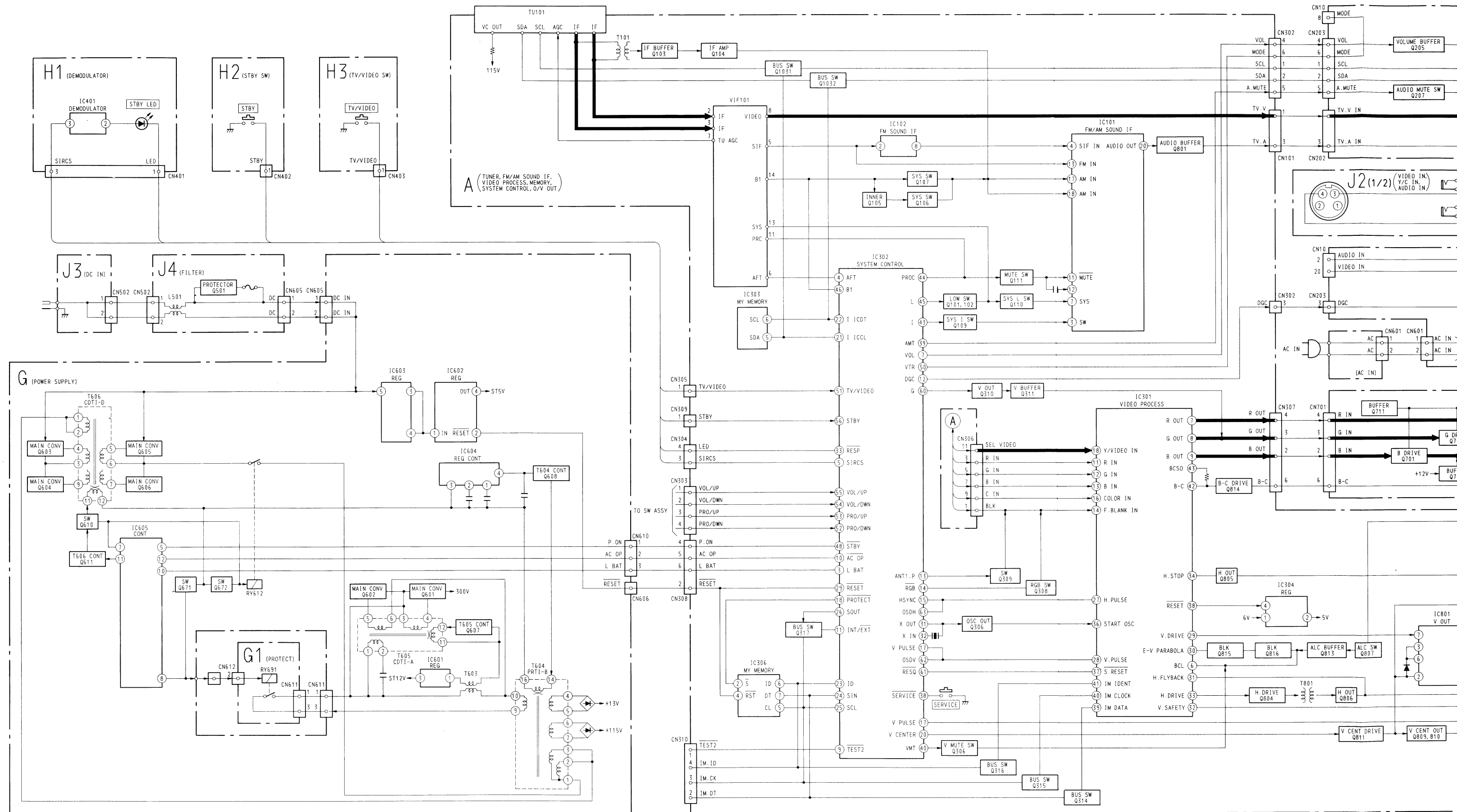
③ AWB : RGB cut-off and drive are automatically adjusted. [Mode 0] without IK pulse, countermeasures against claims ; [Mode 1] only A WB function unavailable, adjustment mode ;

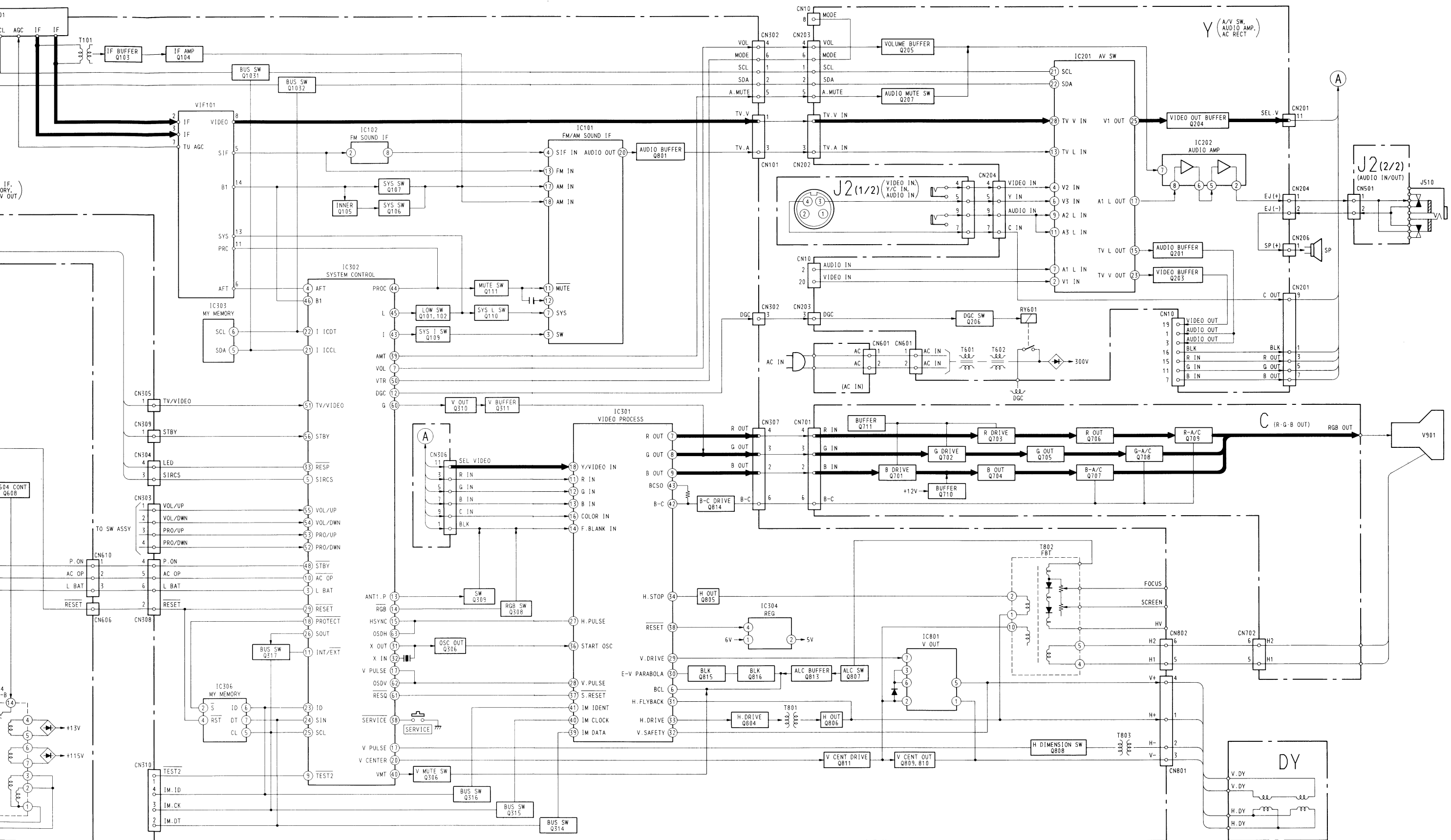
[Mode 2] Auto cut-off function only ; [Mode 3] Auto white balance function

Note 1 : Two adjustment modes are available, L-byte (fine adjustment) and H-byte (rough adjustment) .

SECTION 5 DIAGRAMS

5-1. BLOCK DIAGRAM

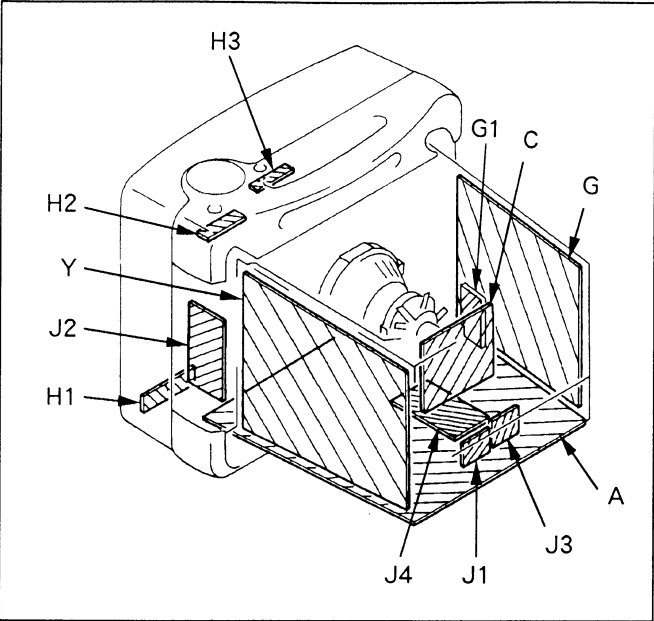




A

TUNER FM/AM SOUND I
VIDEO PROCESS MEMOR
SYSTEM CONTROL H/V C

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

5-3. SCHEMATIC DIAGRAMS AND PRINTED
WIRING BOARDS — CONDUCTOR SIDE —

- Note :
- All capacitors are in μF unless otherwise noted.
pF : μF 50 WV or less are not indicated except for electrolytics.
 - Indication of resistance, which does not have one for rating electrical power, is as follows.

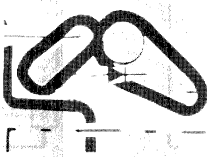
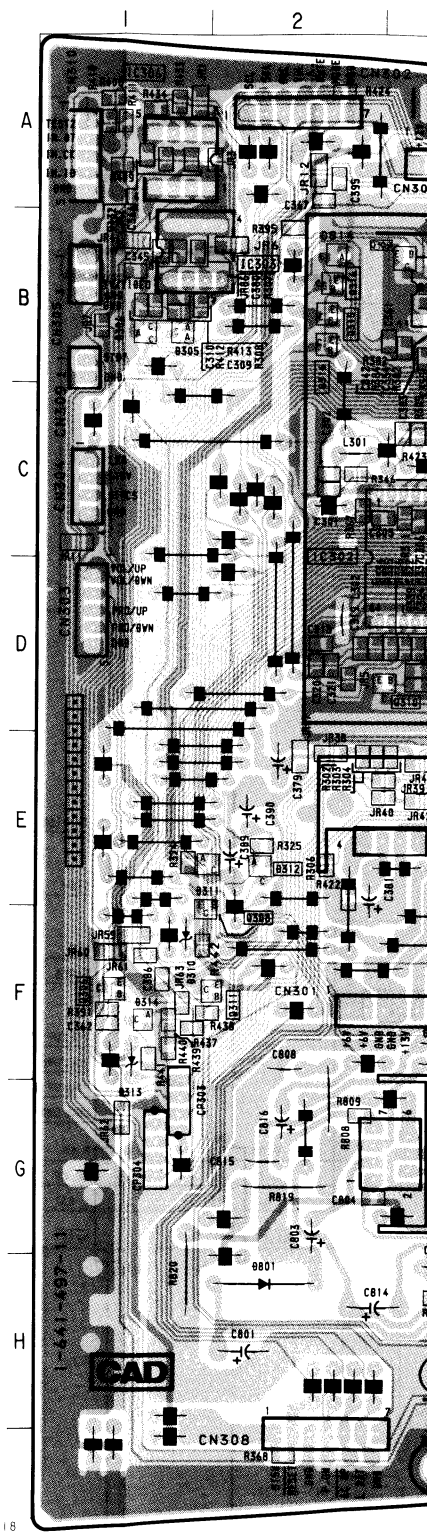
Pitch : 5 mm
Rating electrical power 1/10W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 M Ω digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

I C		D I O D E	
IC101	D-7	D101	C-7
IC102	D-7	D102	C-8
IC301	B-4	D305	D-6
IC302	C-4	D306	E-6
IC303	B-1	D310	E-8
IC304	E-3	D311	E-8
IC305	E-4	D312	E-8
IC306	A-1	D313	E-7
IC801	G-3	D314	D-7
T R A N S I S T O R		D315	D-8
		D801	D-8
		D802	F-1
		D807	C-5
		D810	F-2
		D811	B-3
		D812	D-3
		D813	F-2
		D814	B-2
		T E S T P O I N T	
		TP103	B-9
Q101	C-7		
Q102	C-8		
Q103	D-6		
Q104	E-6		
Q105	E-8		
Q106	E-8		
Q107	E-8		
Q108	E-7		
Q109	D-7		
Q110	D-8		
Q111	D-8		
Q306	F-1		
Q307	C-5		
Q308	F-2		
Q309	B-3		
Q310	D-3		
Q311	F-2		
Q314	B-2		
Q315	B-2		
Q316	B-2		
Q317	C-5		
Q804	H-3		
Q805	H-6		
Q806	F-6		
Q807	H-6		
Q808	F-4		
Q809	H-5		
Q810	H-5		
Q811	H-6		
Q813	G-5		
Q814	A-4		
Q815	B-4		
Q816	B-3		
Q1031	C-7		
Q1032	C-6		

— A board —



NOTE:
The circuit
600 Vp-p.
inspection

A

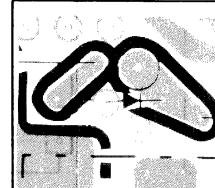
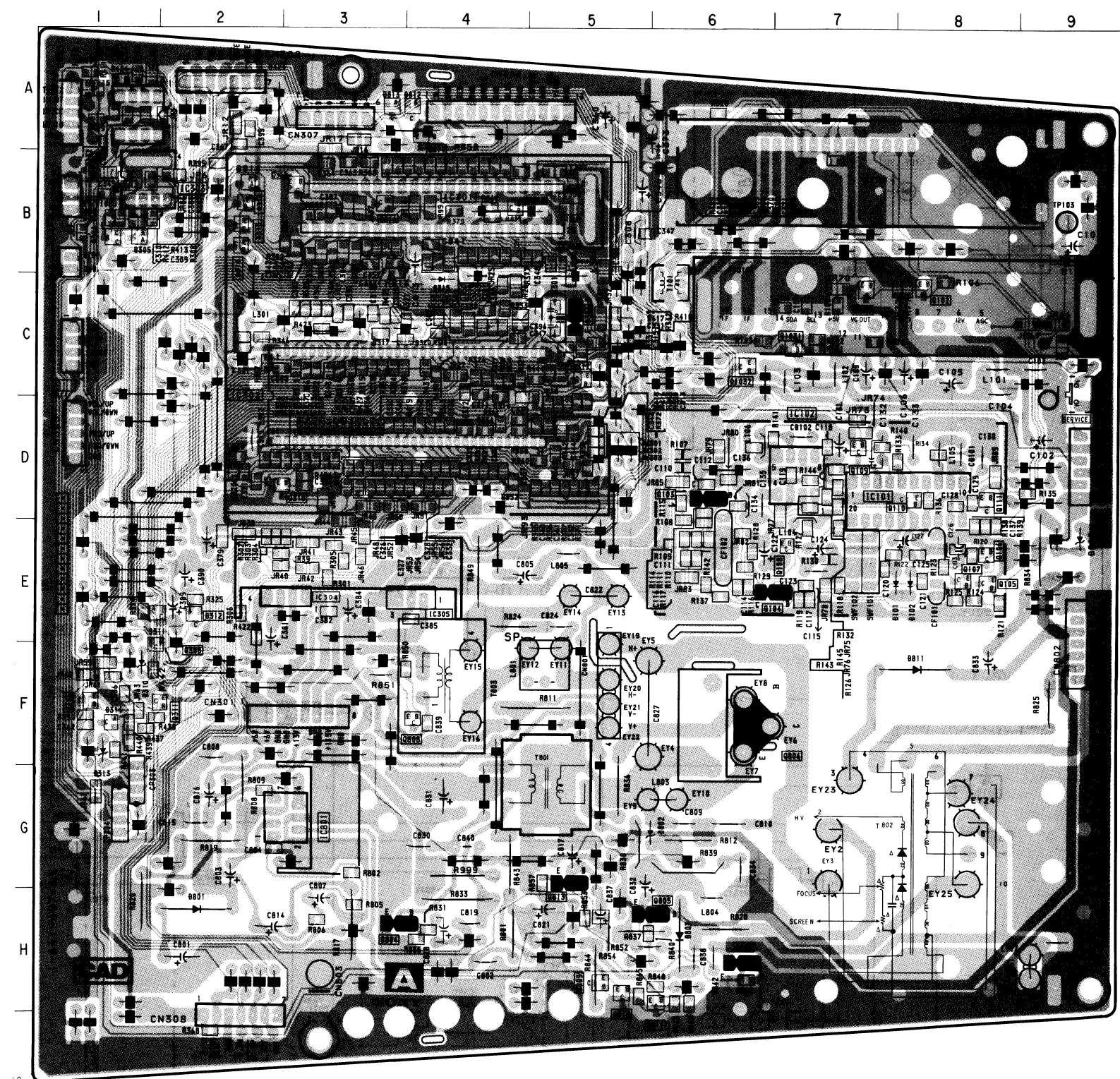
(TUNER FM/AM SOUND IF
VIDEO PROCESS MEMORY
SYSTEM CONTROL H/V OUT)

Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

— A board —

I C		D I O D E	
IC101	D-7	D101	C-7
IC102	D-7	D102	C-8
IC301	B-4	D305	D-6
IC302	C-4	D306	E-6
IC303	B-1	D310	E-8
IC304	E-3	D311	E-8
IC305	E-4	D312	E-8
IC306	A-1	D313	E-7
IC801	G-3	D314	D-7
T R A N S I S T O R		D315	D-8
Q101	C-7	D801	D-8
Q102	C-8	D802	F-1
Q103	D-6	D807	C-5
Q104	E-6	D810	F-2
Q105	E-8	D811	B-3
Q106	E-8	D812	D-3
Q107	E-8	D813	F-2
Q108	E-7	D814	B-2
Q109	D-7	T E S T P O I N T	
Q110	D-8	TP103	B-9
Q111	D-8		
Q306	F-1		
Q307	C-5		
Q308	F-2		
Q309	B-3		
Q310	D-3		
Q311	F-2		
Q314	B-2		
Q315	B-2		
Q316	B-2		
Q317	C-5		
Q804	H-3		
Q805	H-6		
Q806	F-6		
Q807	H-6		
Q808	F-4		
Q809	H-5		
Q810	H-5		
Q811	H-6		
Q813	G-5		
Q814	A-4		
Q815	B-4		
Q816	B-3		
Q1031	C-7		
Q1032	C-6		



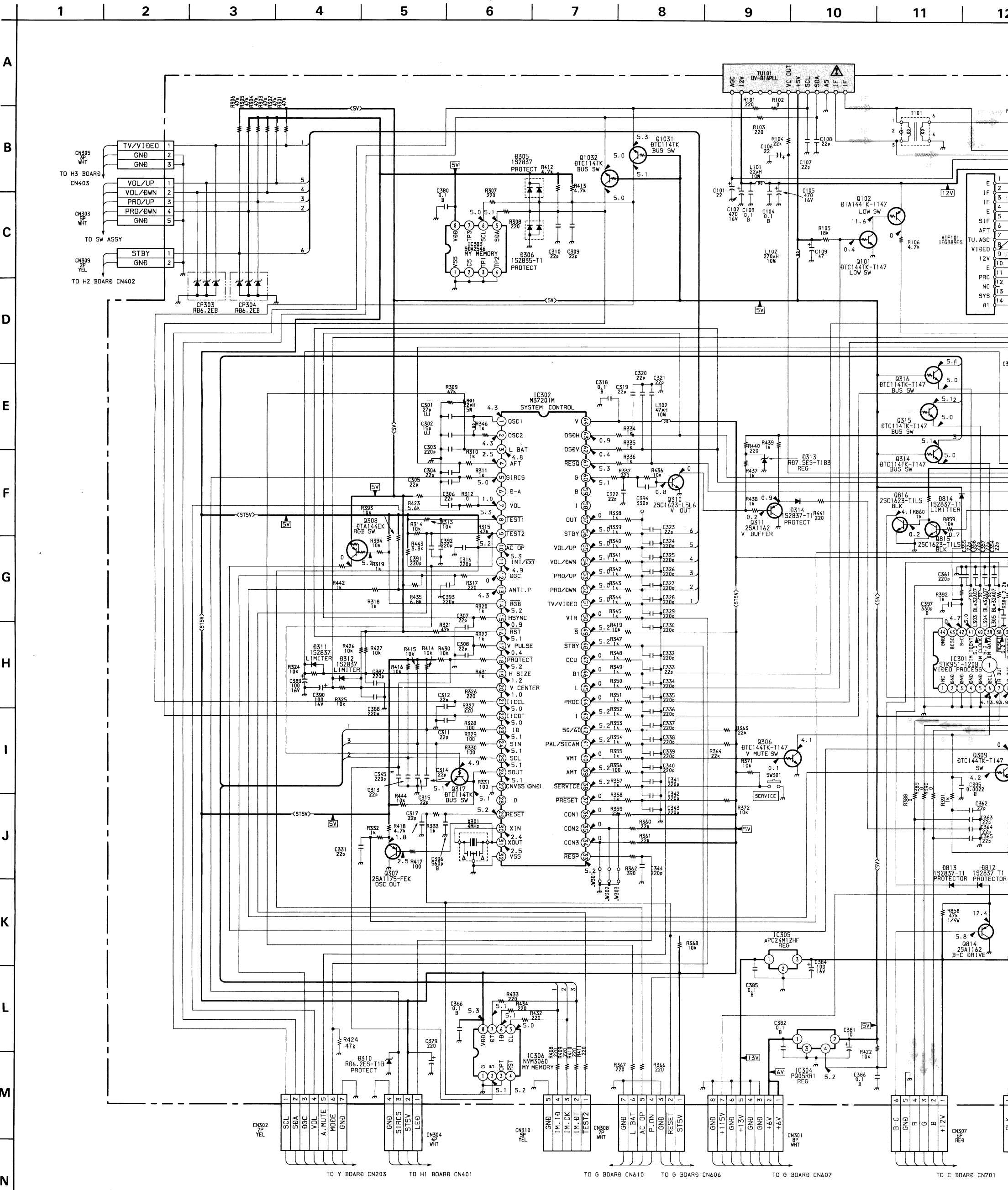
NOTE:

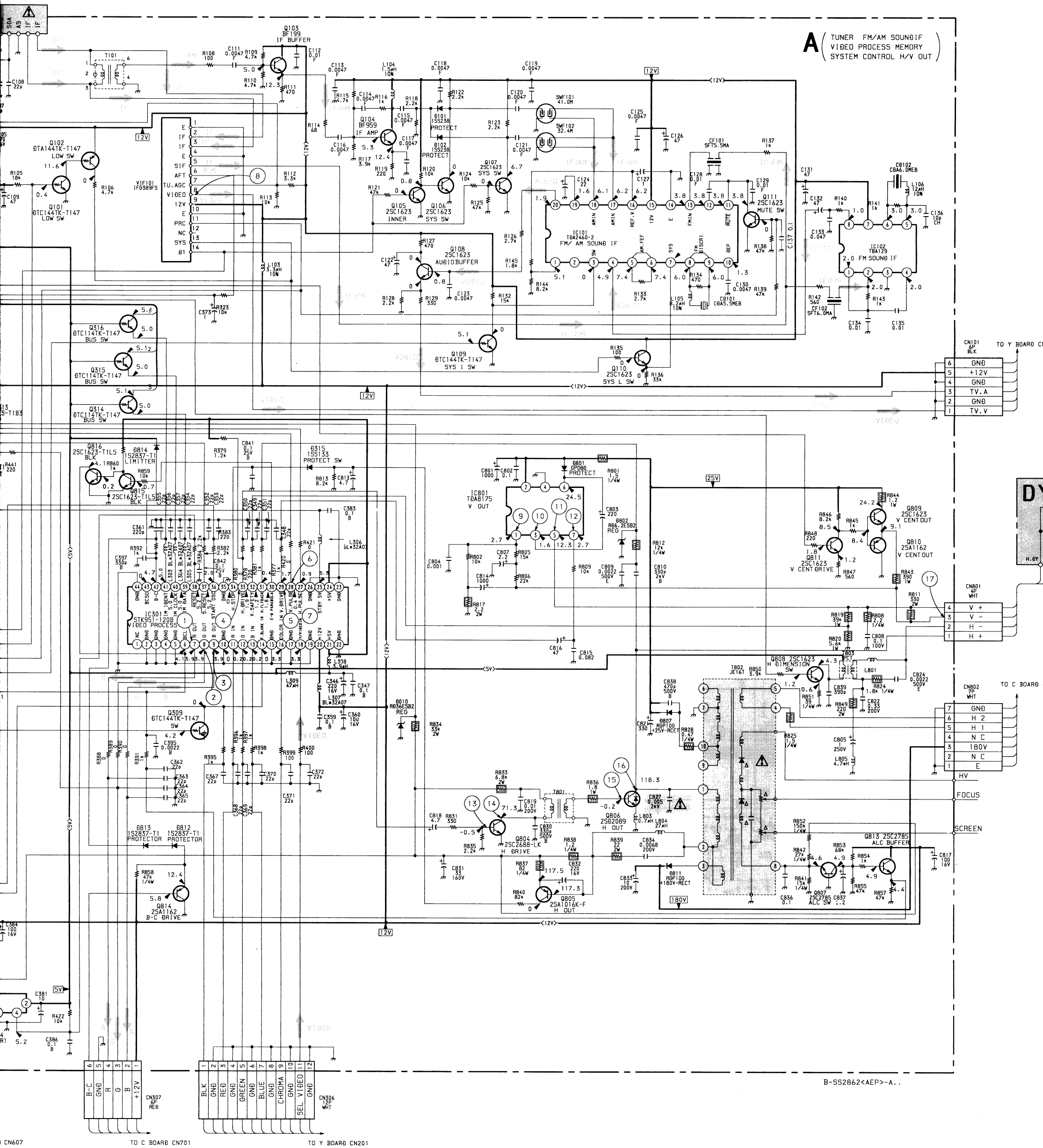
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

CARBON
USIBLE
WIREWOUND
METAL OXIDE
EMENT

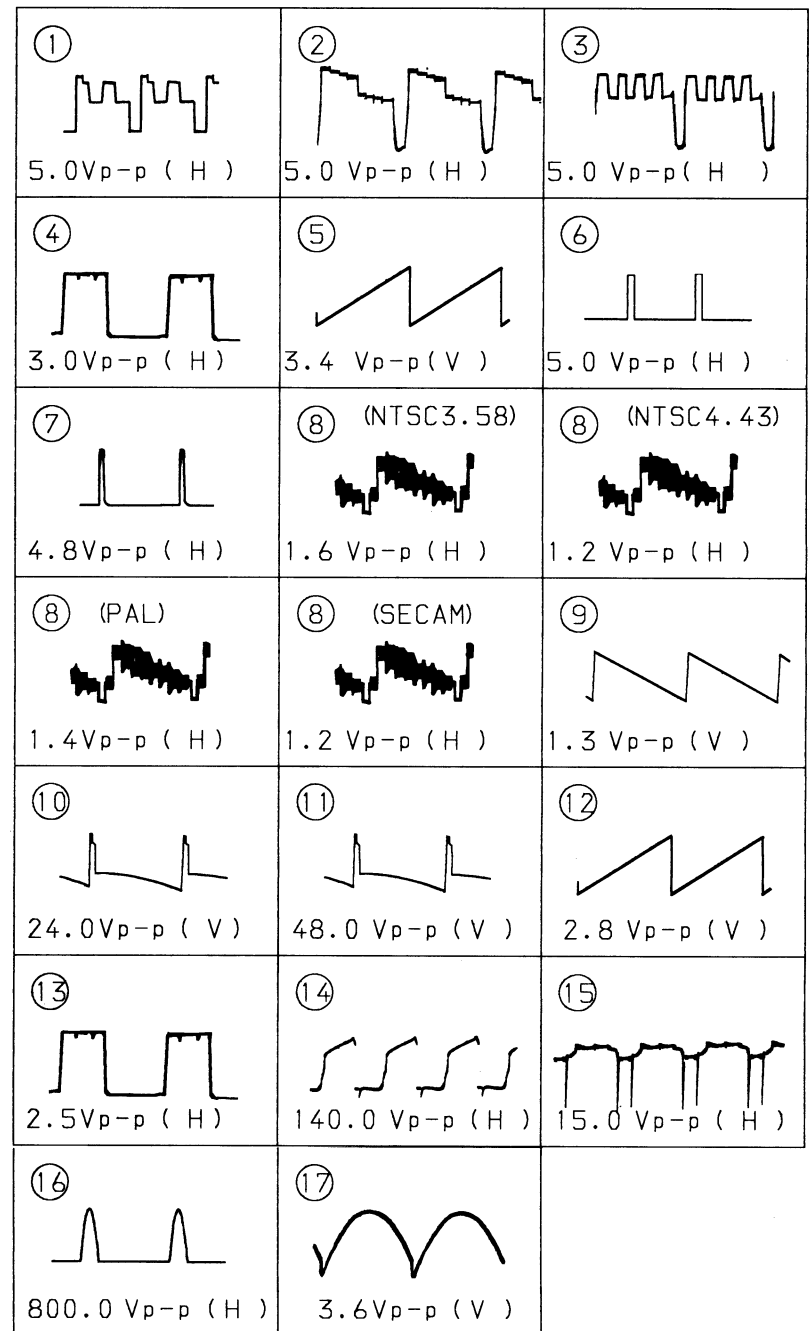
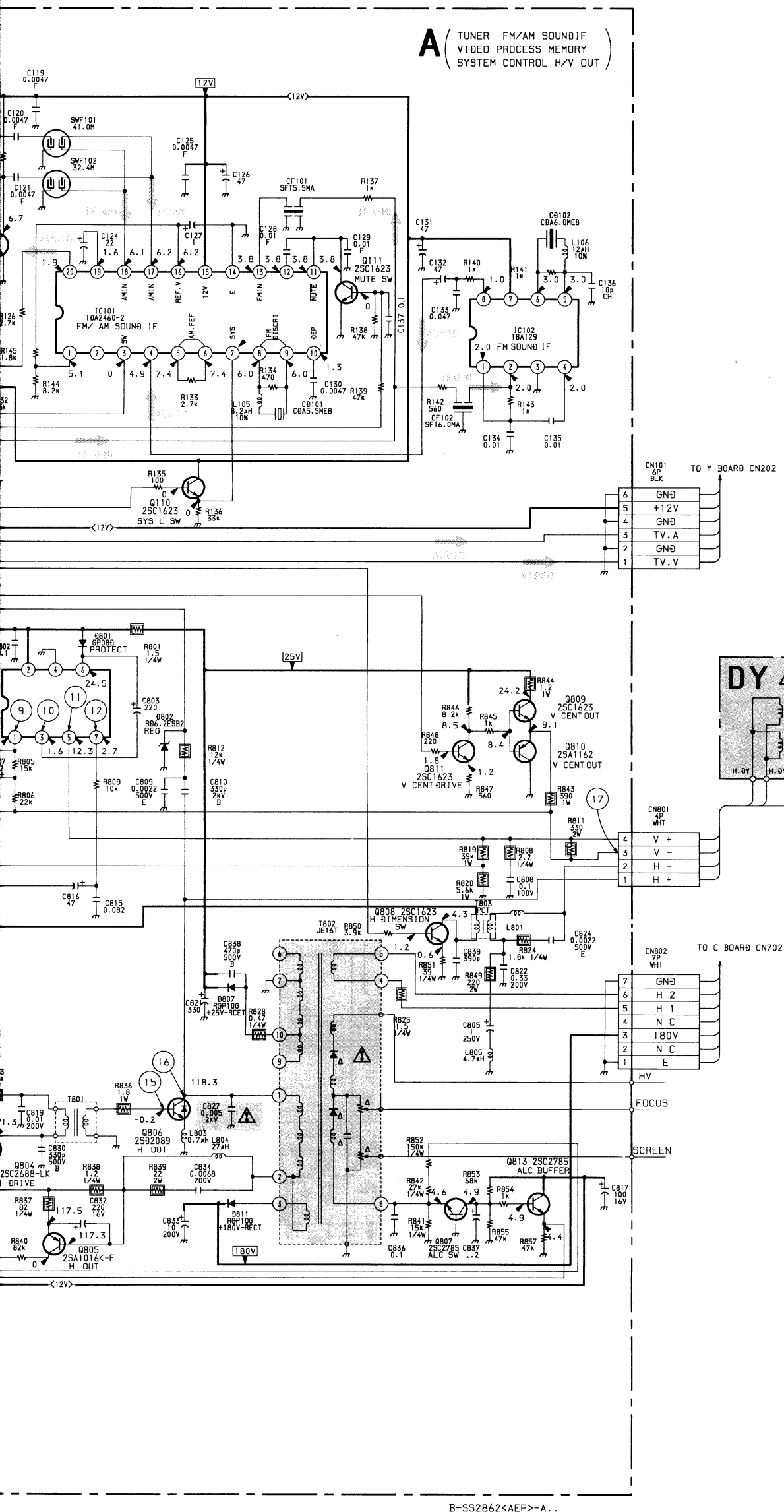
STER
ROPYLENE

RE

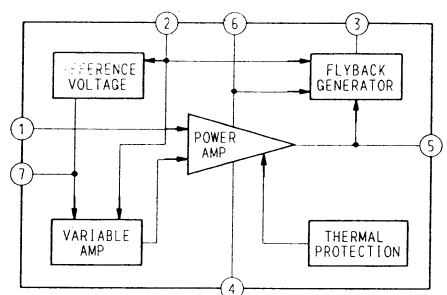




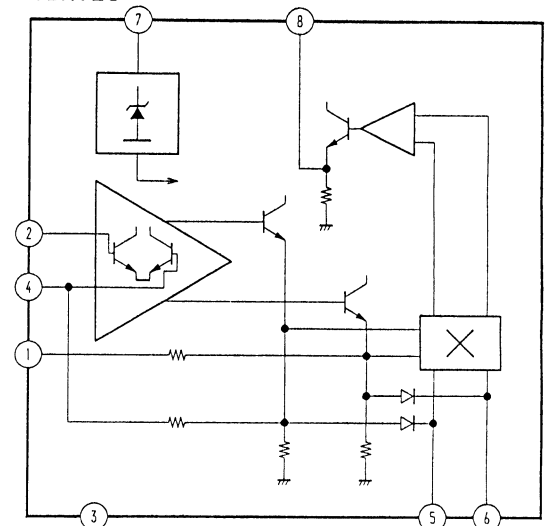
WAVEFORMS A BOARD



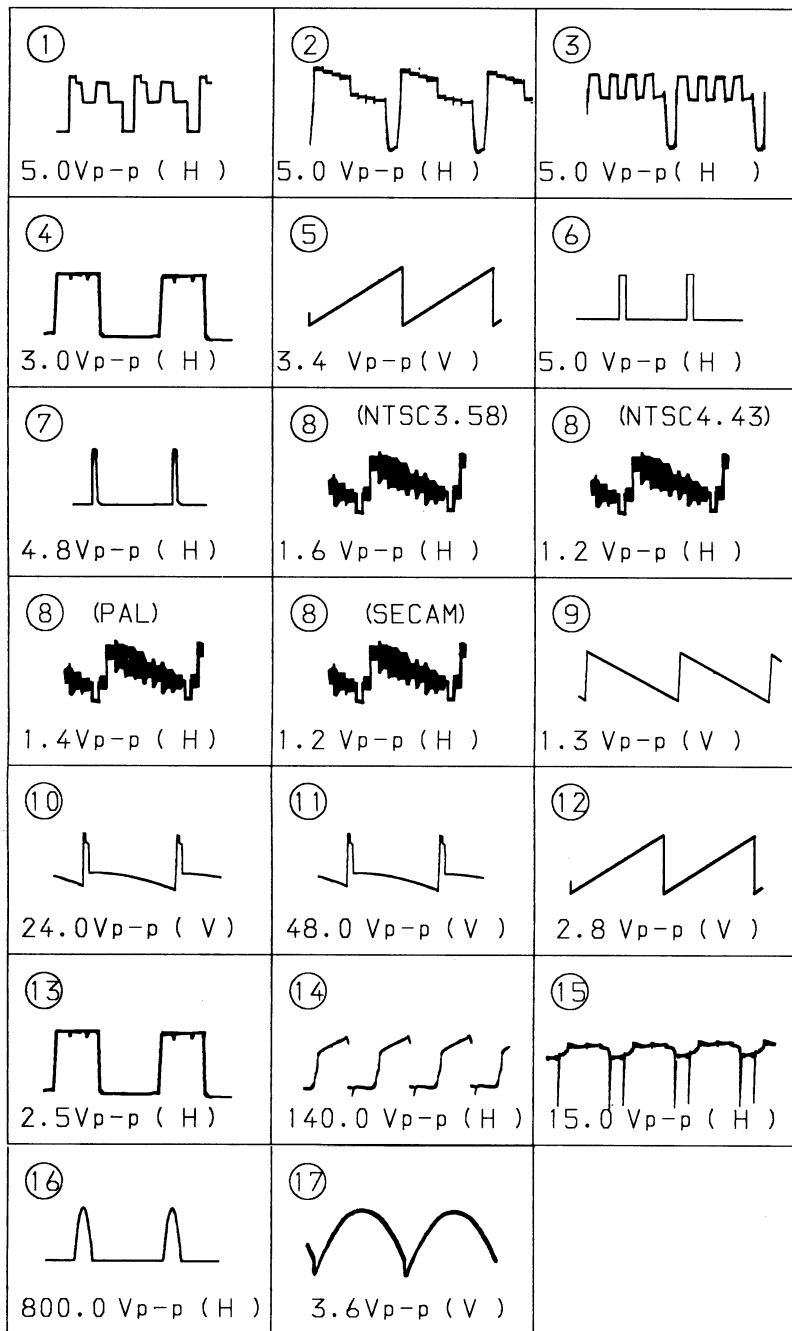
A BOARD IC801 TDA8175



A BOARD IC102 TBA129
TBA129

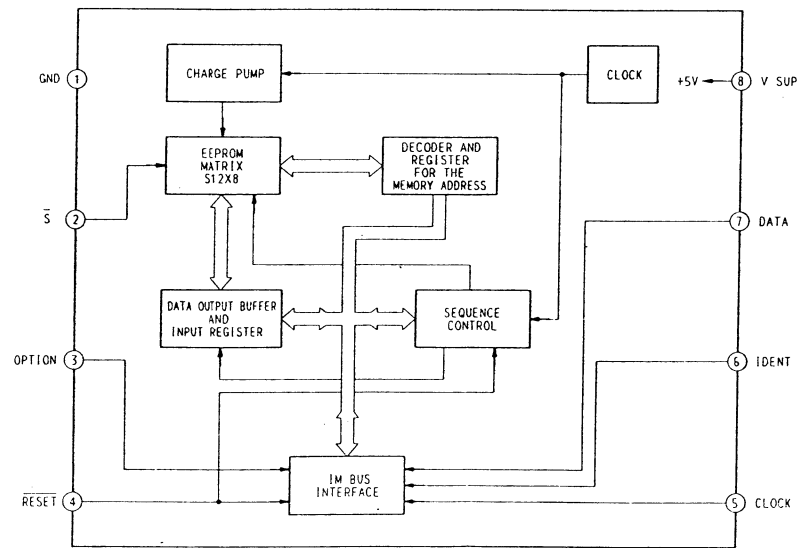


WAVEFORMS A BOARD



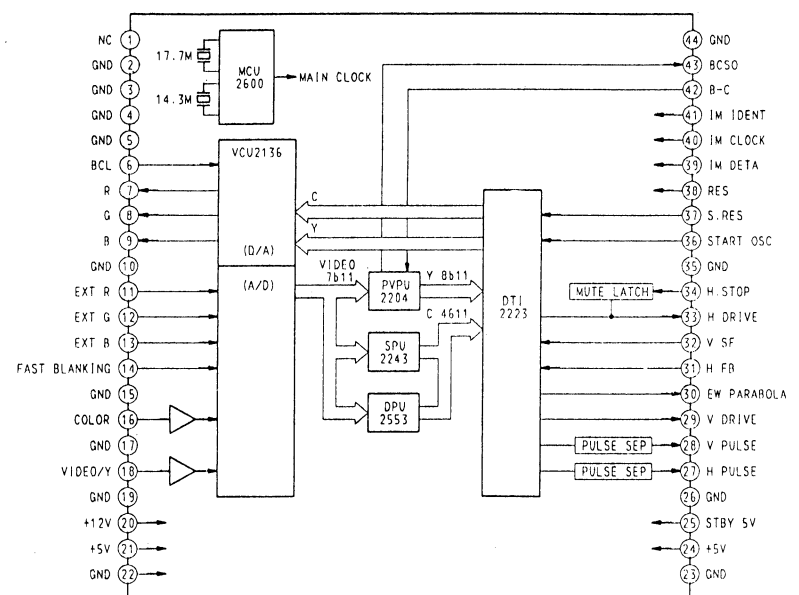
A BOARD IC306 NVM3060

A BOARD IC306



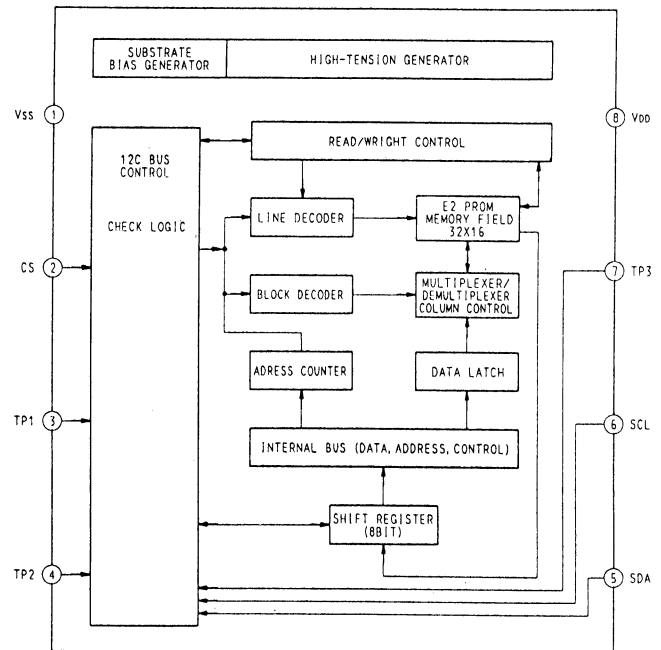
A BOARD IC301 STK951-120B

A BOARD IC301

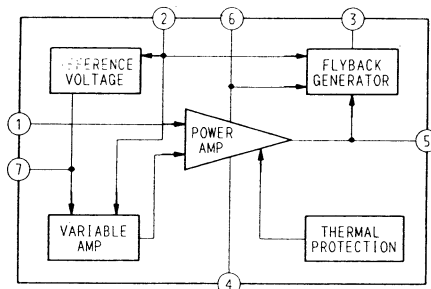


A BOARD IC303 SDA2546

A BOARD IC303

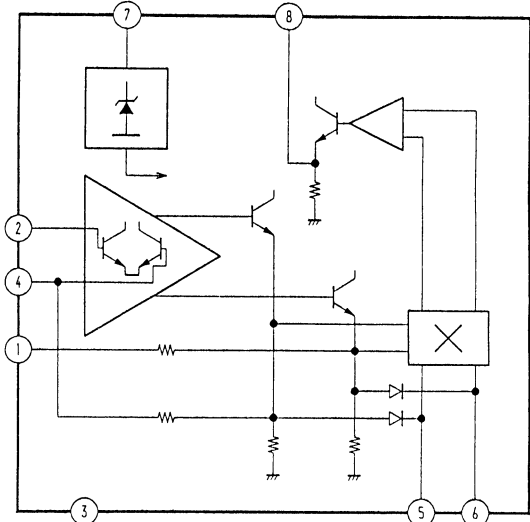


A BOARD IC801 TDA8175



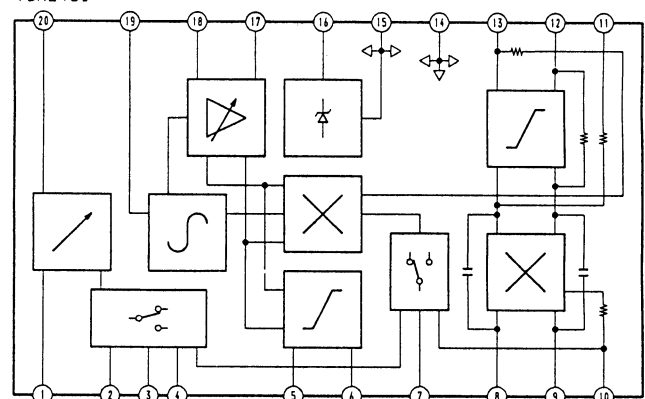
A BOARD IC102 TBA129

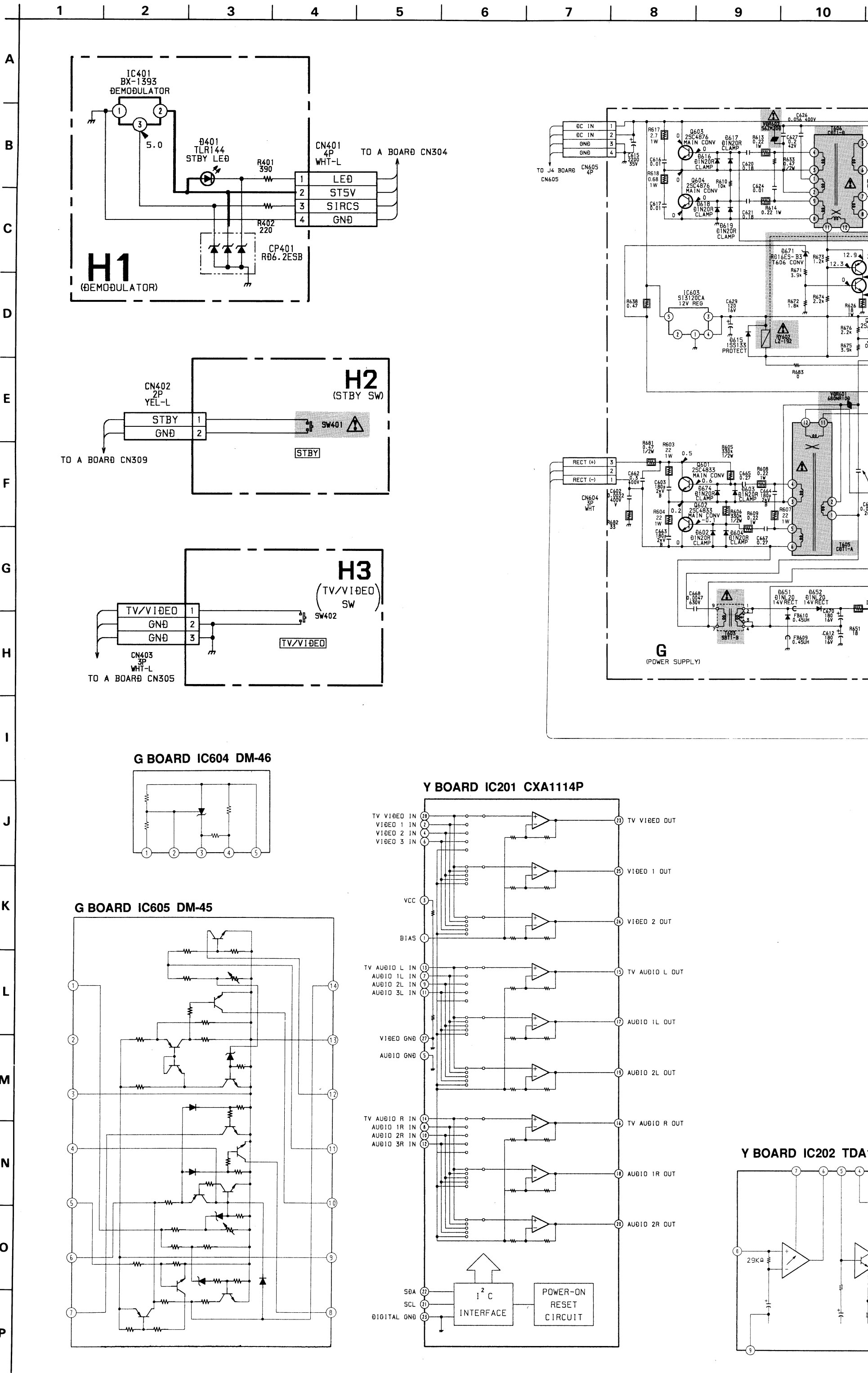
TBA129

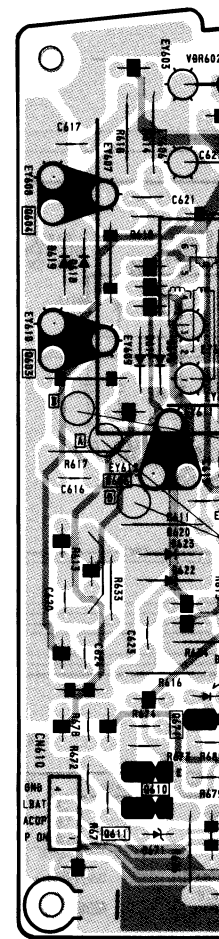
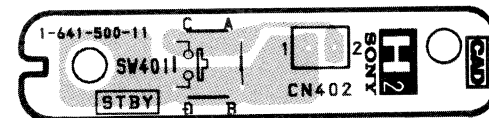
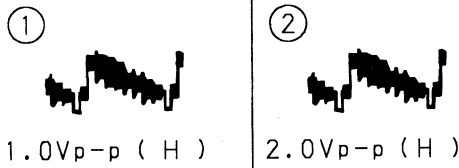


A BOARD IC101 TDA2460-2

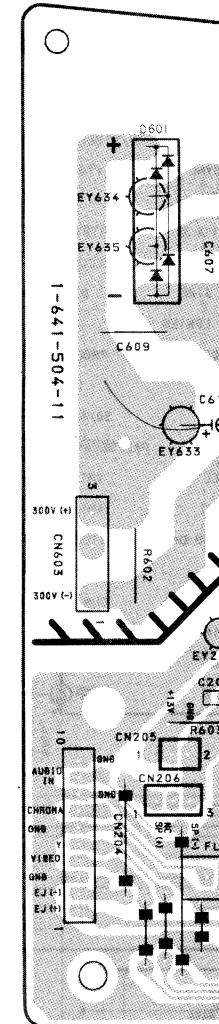
TDA2460



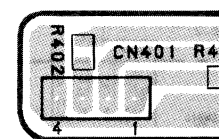




— Y board —



— H1 board —



G1

(PROTECT)

G

(POWER SUPPLY)

YA/V SW
AUDIO AMP
AC RECT**H1**

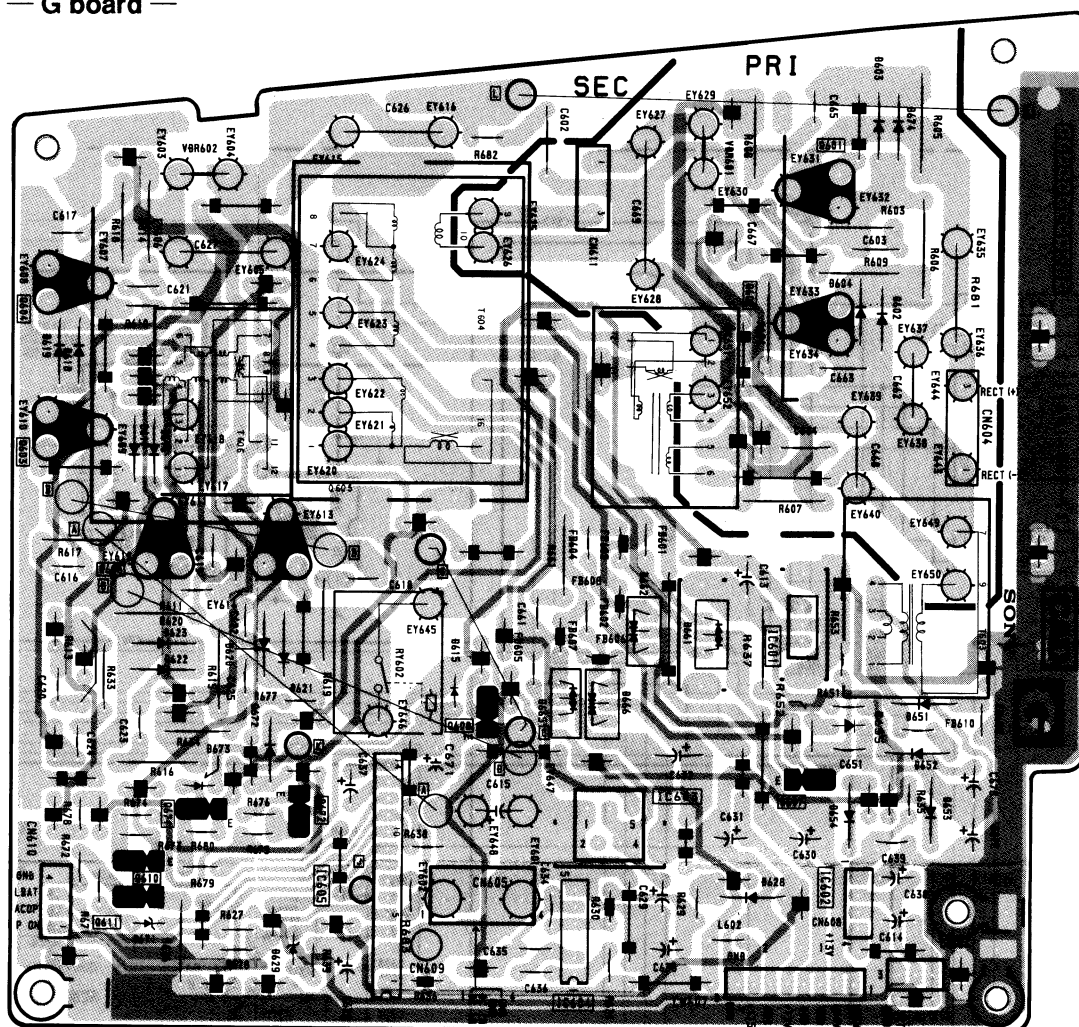
(DEMODULATOR)

H2

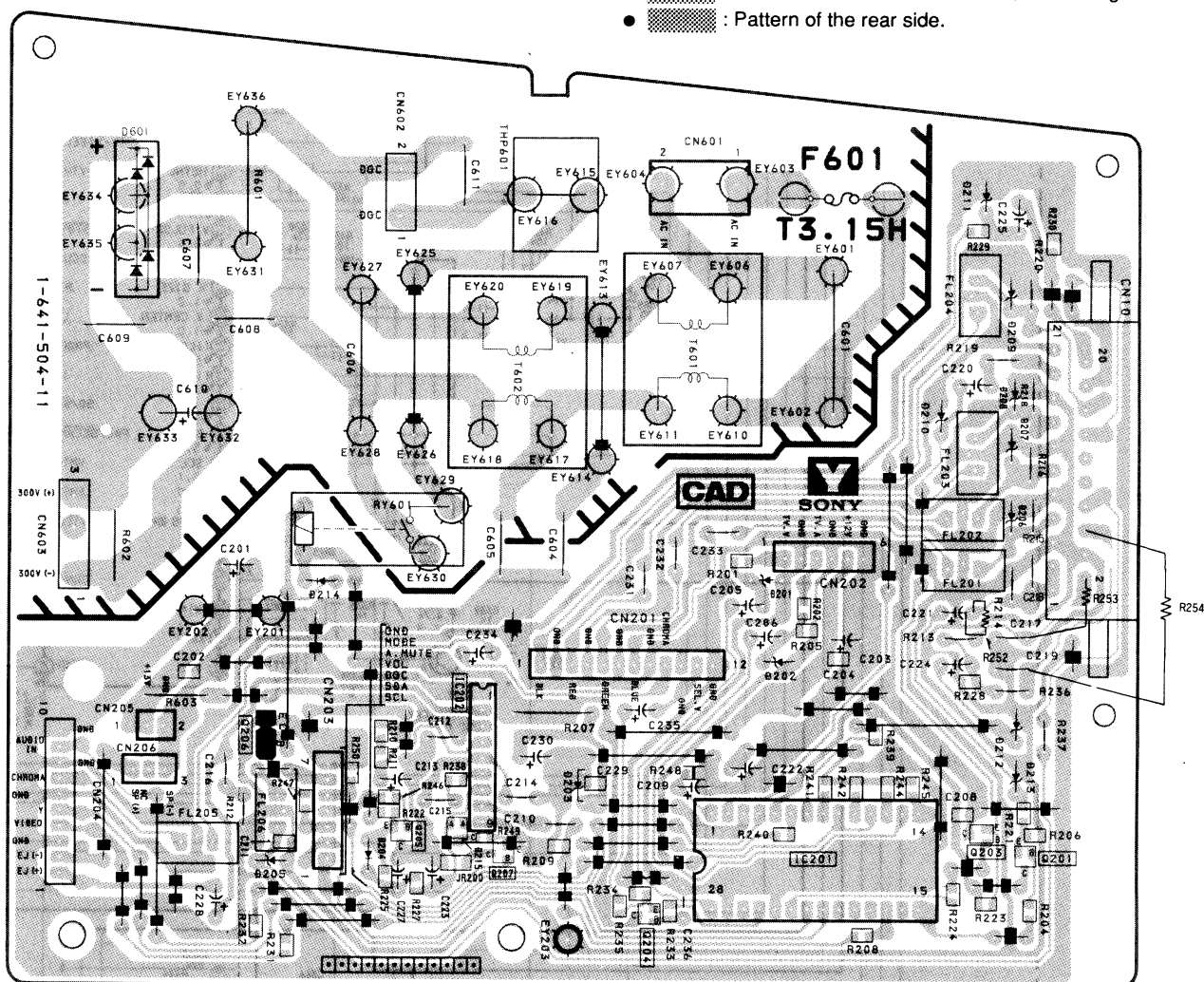
(STBY SW)

H3(TV/VIDEO
SW)

— G board —



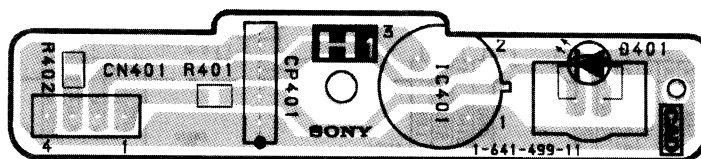
— Y board —



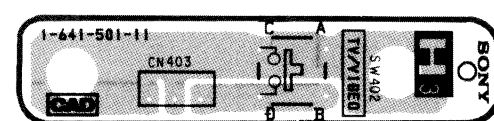
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

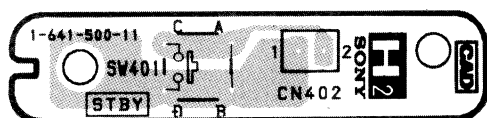
— H1 board —



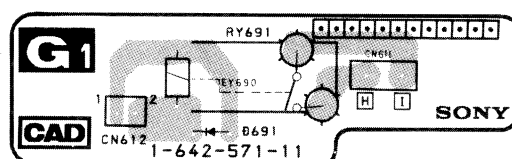
— H3 board —



— H2 board —

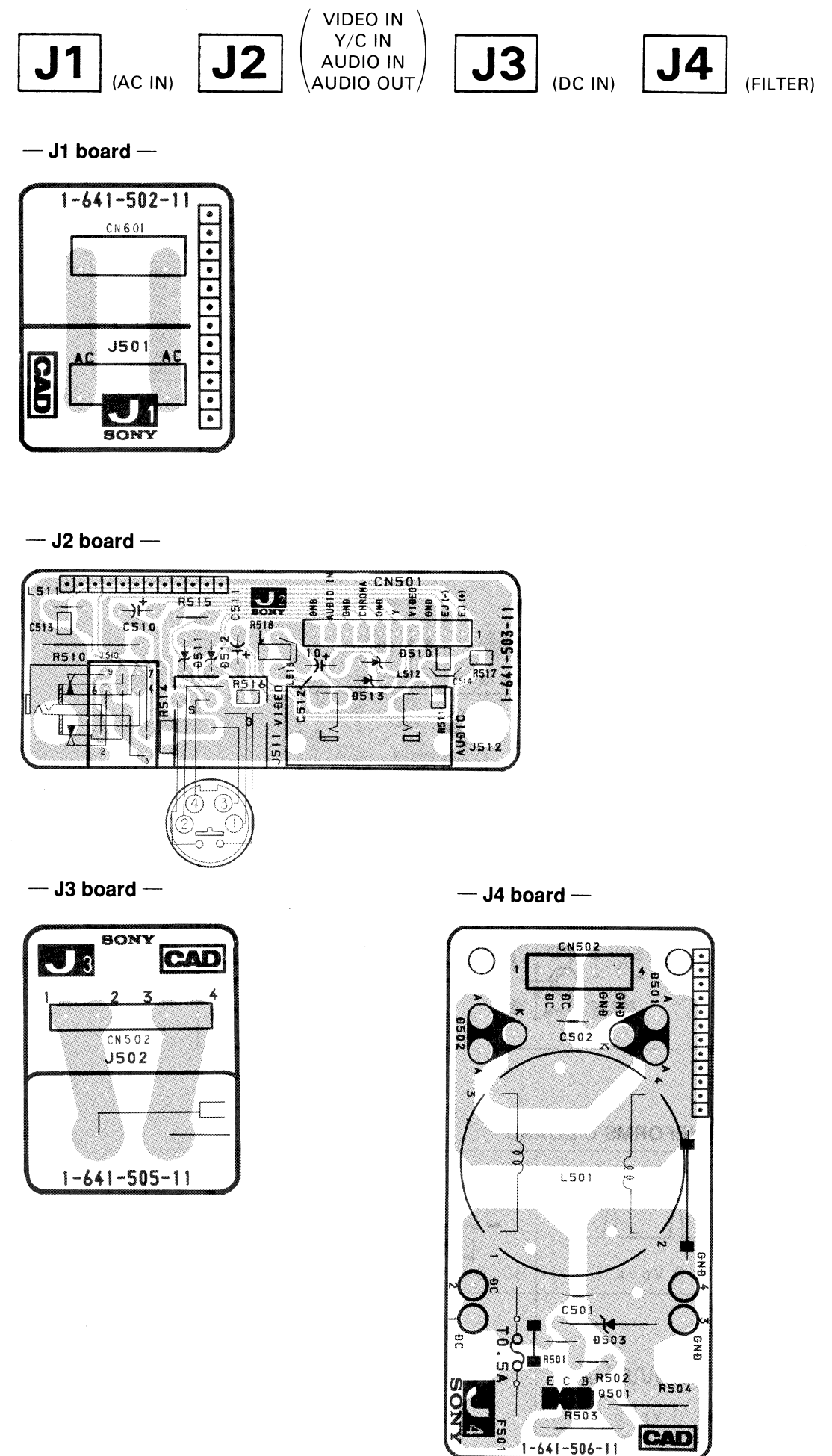
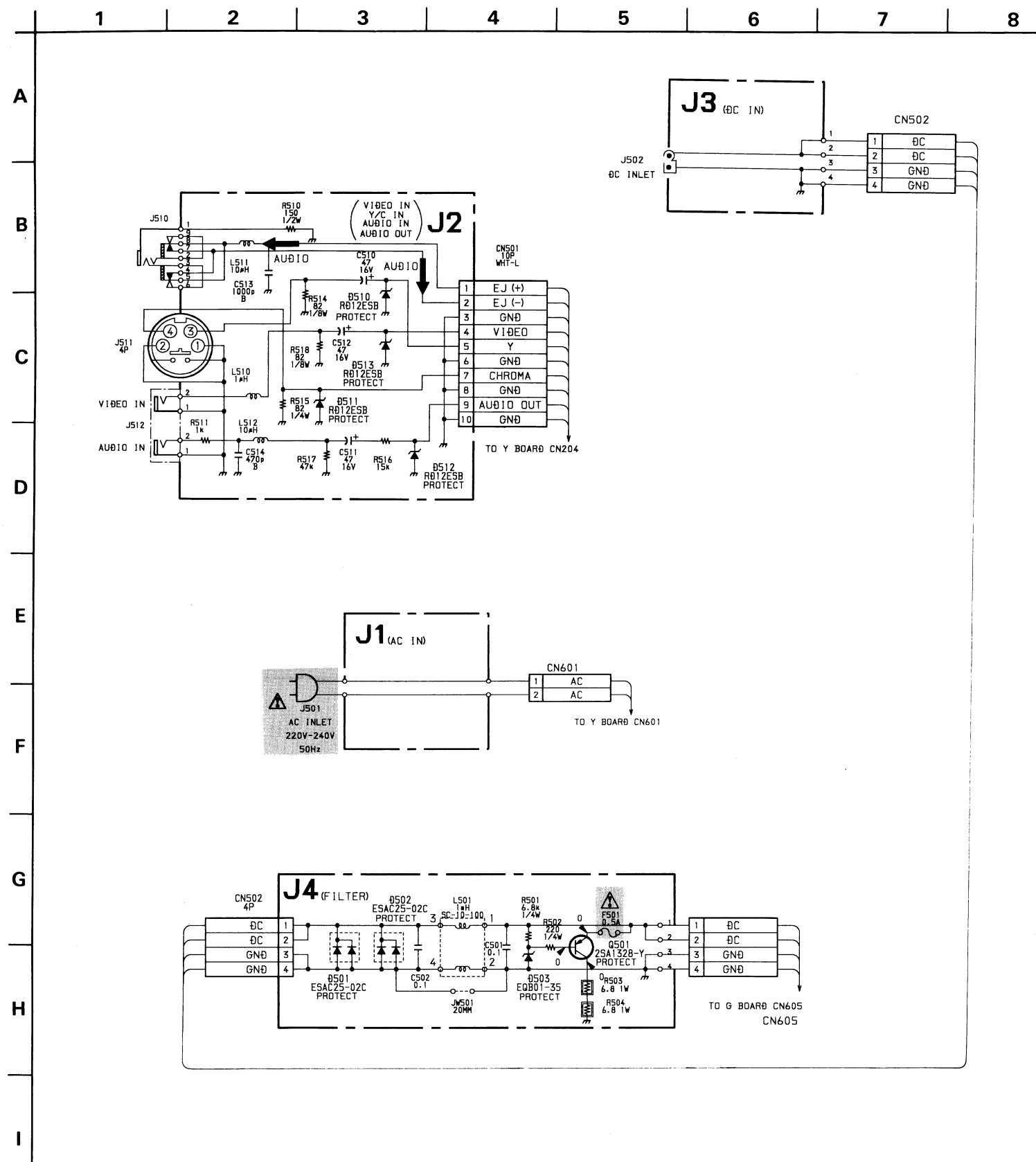


— G1 BOARD —

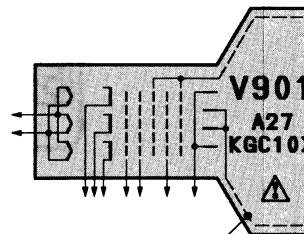





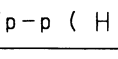
NOTE:

The circuit indicated as left contains 600 Vp-p. Care must be paid to prevent inspection or repairing.

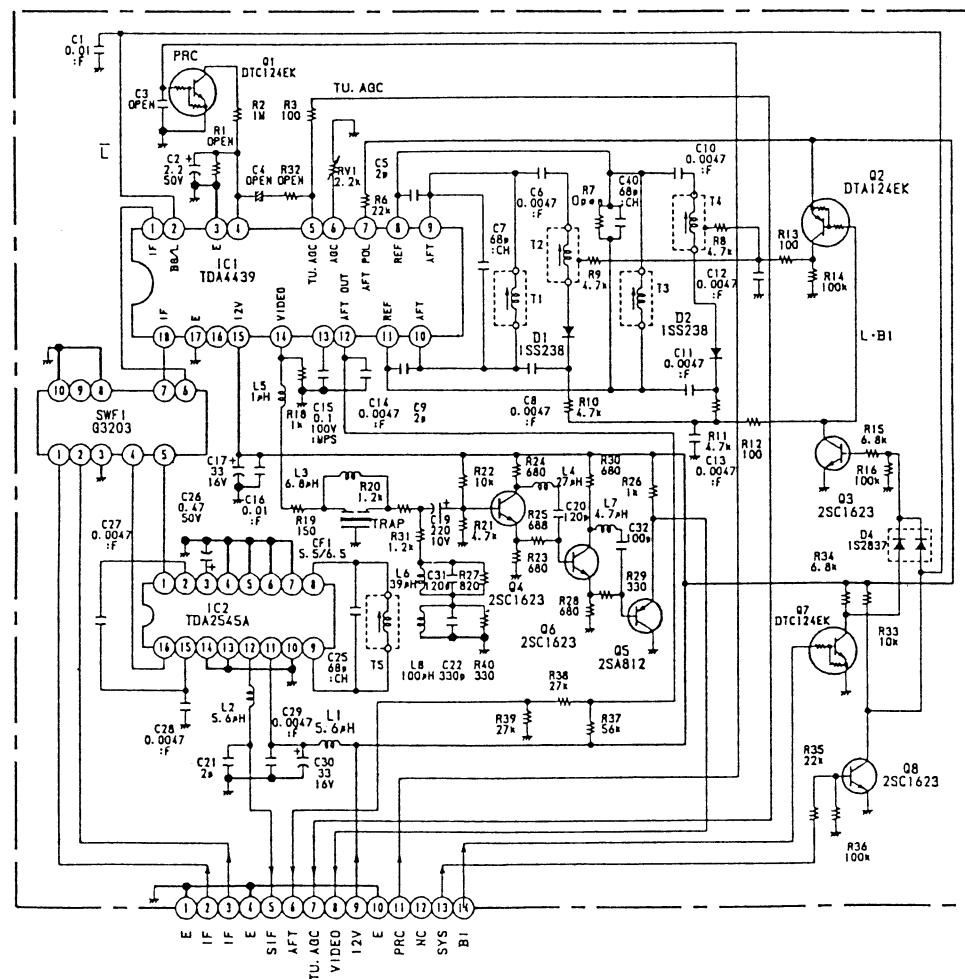


1	2	3	4	5	6	7
---	---	---	---	---	---	---

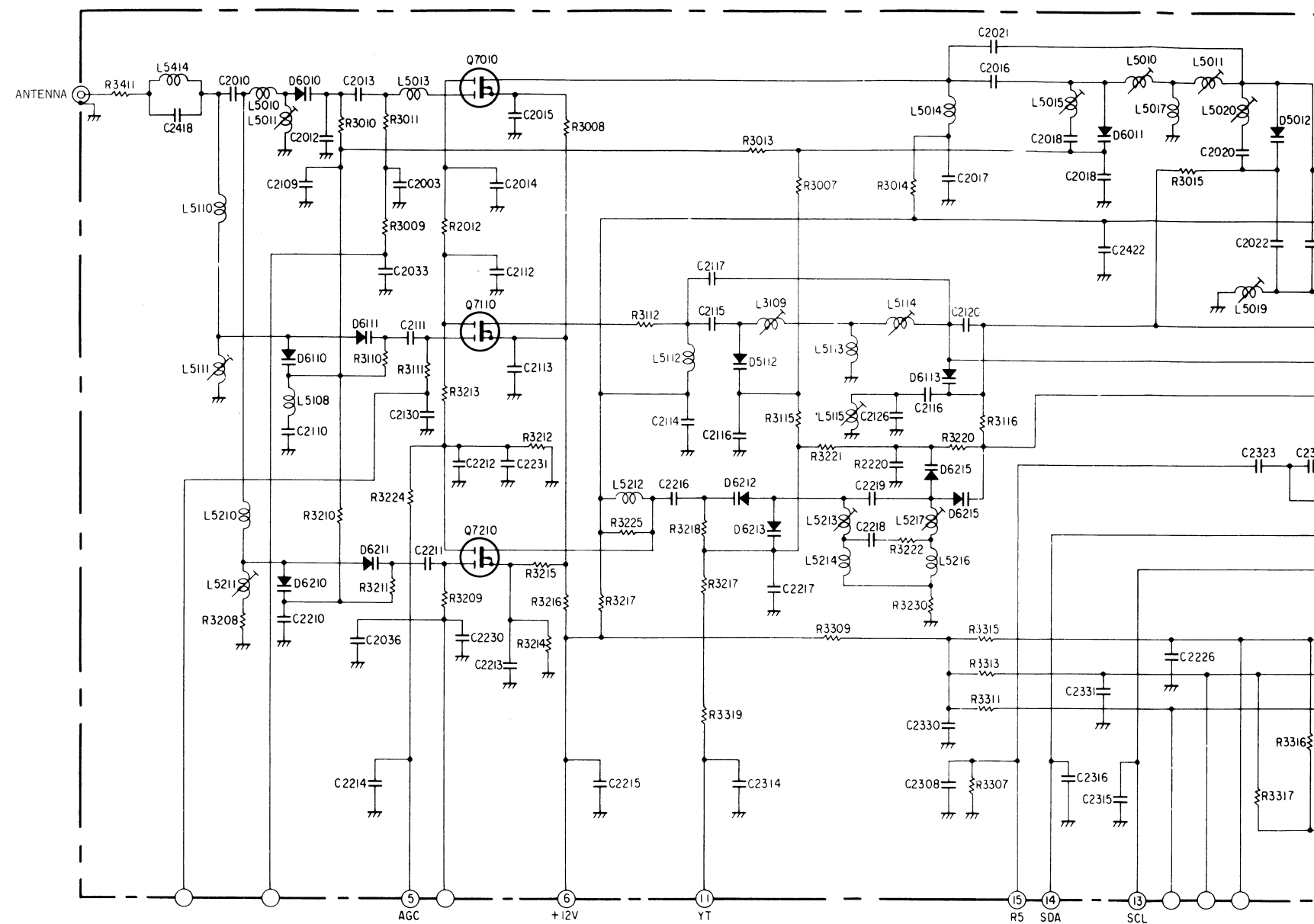


<p>①</p>  <p>23.0 V_{p-p} (H)</p>	<p>②</p>  <p>90.0 V_{p-p} (H)</p>	<p>③</p>  <p>90.0 V_{p-p} (H)</p>
<p>④</p>  <p>90.0 V_{p-p} (H)</p>		

VIF101 IFG-389FS



TU101 UV816PLL



TU101 UV816PLL



5-4. SEMICONDUCTORS

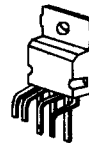
BX-1393



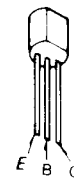
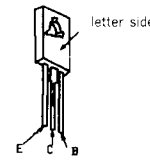
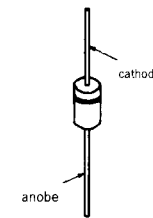
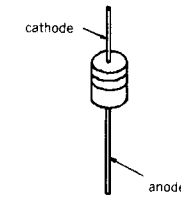
PQ05RR1



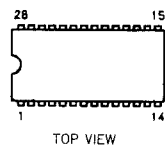
TDA8175



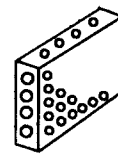
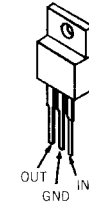
2SA1016KFG

2SC2611
2SC2688-LKD1NL20
D1N20R
D1NS4
EQB01-35
RD16ESB3
RD20ESB2
RU-3AMRD12ESB1
RD36ESB2
RD5.1ESB2
RD5.6ES-B
RD6.2ES-B2
RD7.5ESB3
1SS119
1SS168

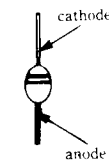
CXA1114P



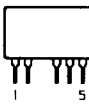
STK951-120B

M5F78M12L
 μ PC24M12HF2SA1091-0
2SC2551-RL2SC4833
2SC4876

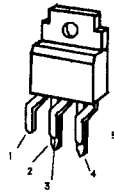
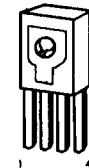
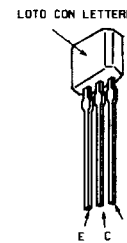
D10SC4M

RD12ESB
U05G

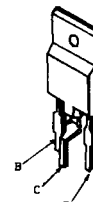
DM-45



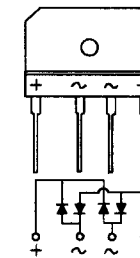
S1-3120CA

 μ PC2255H2SA1175-FEK
2SA1175-HFE
2SC2785-FEK
LOTO CON LETTERE

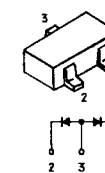
2SD2089-LBSONY



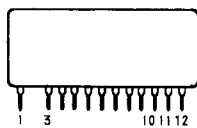
D4SB60L



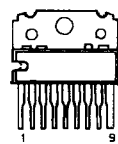
1S2836



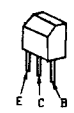
DM-46



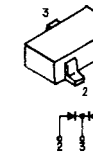
TDA1013B

BF199
BF959

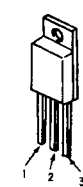
2SA1221-L



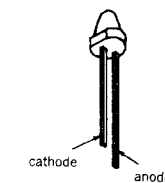
2SD2096-EF

DAN202K
MA152WK
1S2837

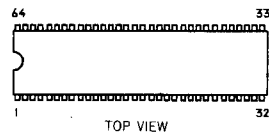
ESAC25-04C



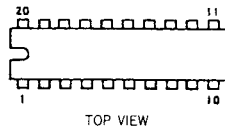
PR5638S



M37201M6-A13SP



TDA2460-2

DTA144EK
DTA144TK
DTC114TK
DTC144TK
2SA1162-G
2SC1623L6
2SC2712-YG

2SA1329-0



SECTION 6
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

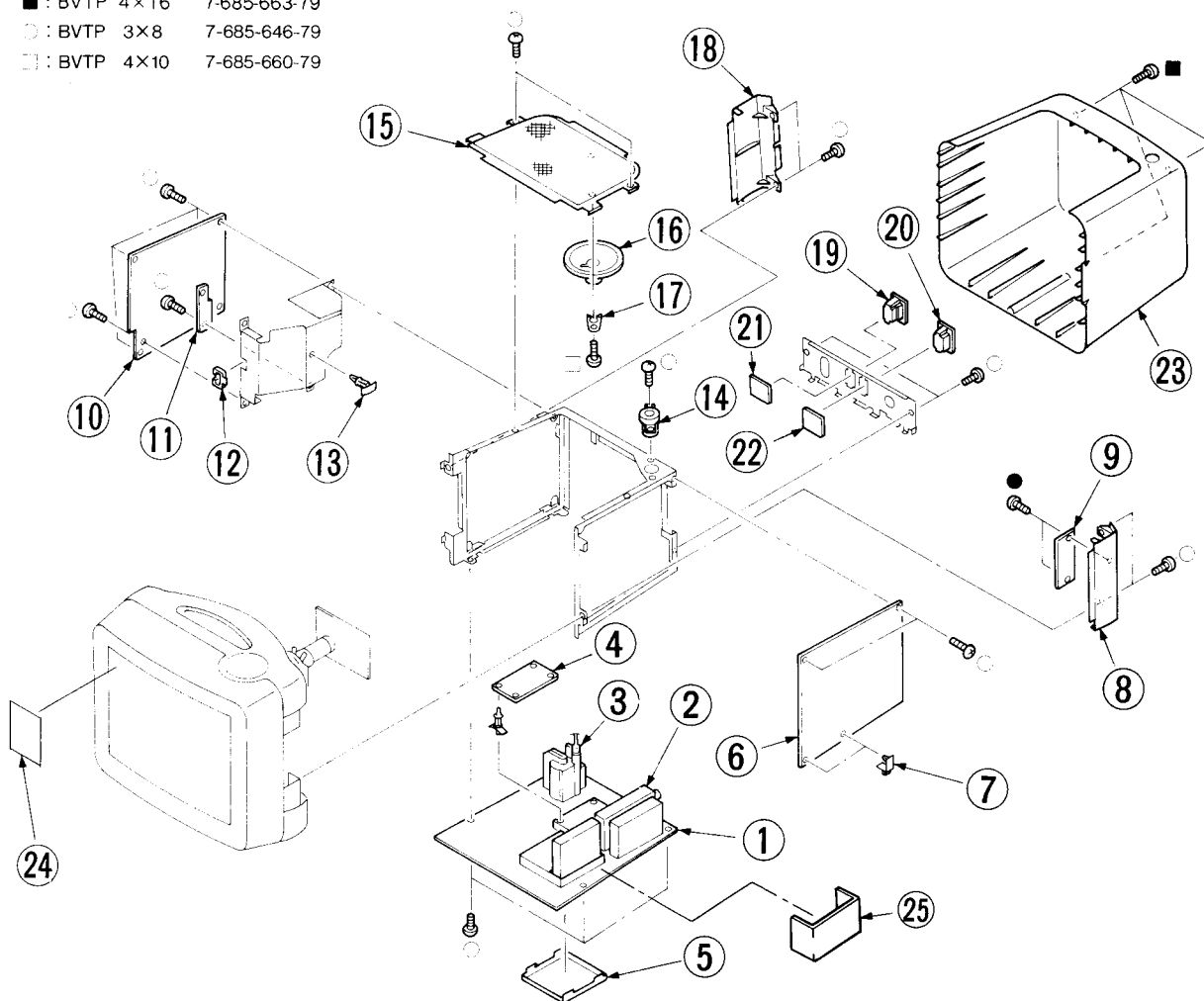
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety.

Replace only with part number specified.

6-1. CHASSIS

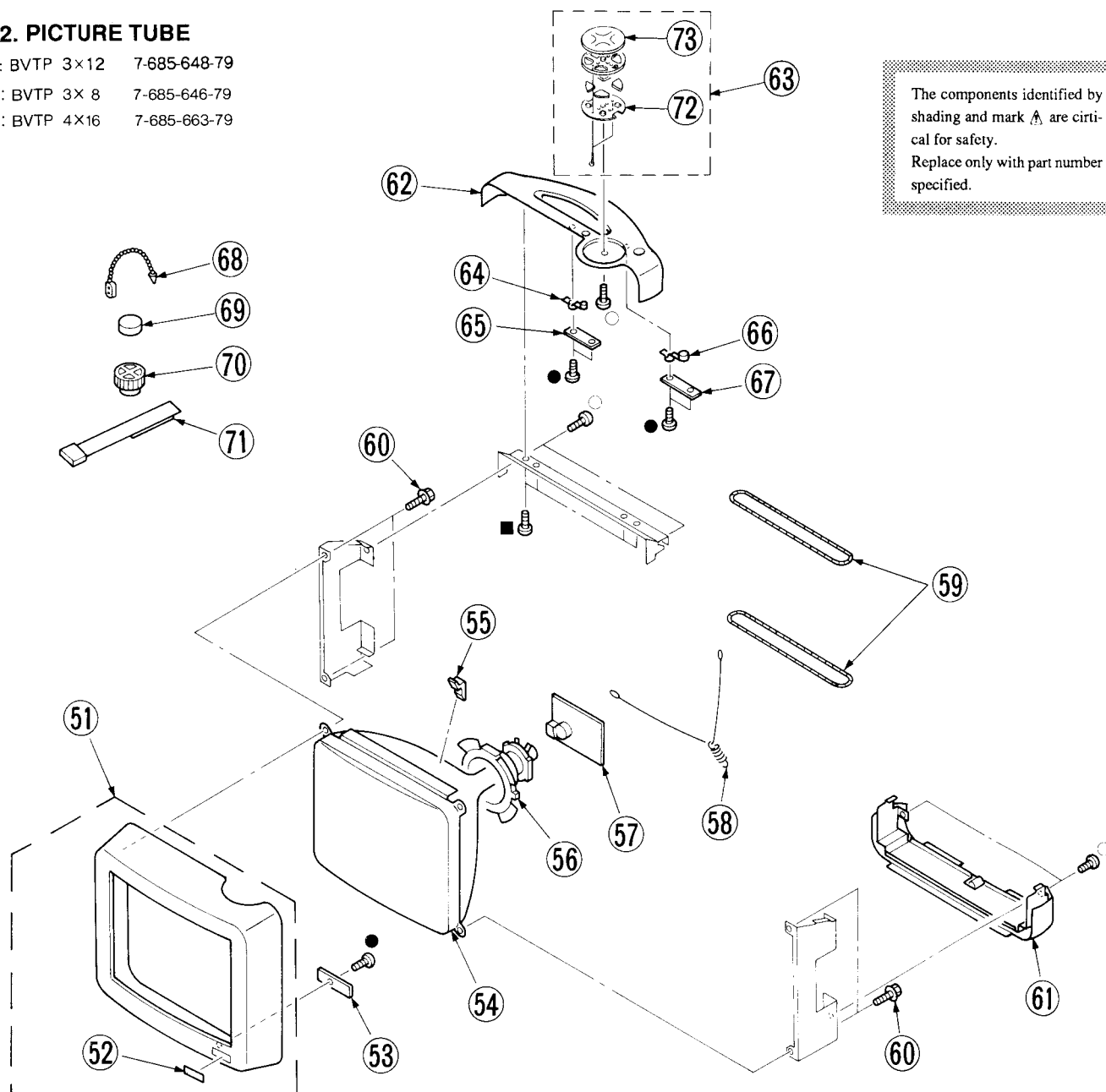
- : BVTP 3×12 7-685-648-79
- : BVTP 4×16 7-685-663-79
- : BVTP 3×8 7-685-646-79
- : BVTP 4×10 7-685-660-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*A-1296-910-A	A BOARD, COMPLETE		13	*3-704-198-11	SUPPORT, PC	
2	Δ 1-465-301-11	TUNER, ET (UV-816(PLL))		14	4-035-428-01	BRACKET, ANTENNA	
3	Δ 1-439-476-11	TRANSFORMER ASSY, FLYBACK		15	X-4030-349-1	PLATE ASSY, SP	
4	*1-641-506-12	J4 BOARD		16	1-544-187-11	SPEAKER	
5	*4-394-974-01	CASE (BOTTOM LID), SHIELD		17	*4-338-106-00	HOLDER, SPEAKER	
6	*A-1394-338-A	Y BOARD, COMPLETE		18	4-035-440-01	PLATE (LEFT), SIDE	
7	*3-701-832-00	HINGE, CIRCUIT BOARD		19	1-561-530-00	CONNECTOR (DC POWER)	
8	4-035-436-01	PLATE (RIGHT), SIDE		20	Δ 1-540-054-11	INLET, AC	
9	*1-641-503-11	J2 BOARD		21	*1-641-505-11	J3 BOARD	
10	*A-1316-122-A	G BOARD, COMPLETE	11	22	*1-641-502-11	J1 BOARD	
11	*1-642-571-11	G1 BOARD		23	X-4030-223-1	COVER ASSY, REAR	
12	*3-646-071-00	HOLDER, WIRE		24	3-703-706-01	STICKER, SONY SYMBOL (25)	
				25	4-036-059-01	SHEET, COPPER	

6-2. PICTURE TUBE

- : BVTP 3×12 7-685-648-79
 ○ : BVTP 3×8 7-685-646-79
 ■ : BVTP 4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4030-222-1	CABINET ASSY (WITH BEZEL ASSY)	52	62	X-4030-225-1	PLATE ASSY, TOP	72,73
52	4-035-423-01	WINDOW, ORNAMENTAL		63	1-466-678-11	SWITCH BLOCK	
53	*1-641-499-11	H1 BOARD		64	4-035-432-01	BUTTON (A), MULTI	
54	A-8-735-821-05	PICTURE TUBE (A27KGC10X)		65	*1-641-501-11	H3 BOARD	
55	3-704-495-01	SPACER, DY		66	4-035-429-01	BUTTON (B), MULTI	
56	A-1-451-354-11	DEFLECTION YOKE (Y11SLA)		67	*1-641-500-11	H2 BOARD	
57	*A-1331-179-A	C BOARD, COMPLETE		68	4-308-870-00	CLIP, LEAD WIRE	
58	4-303-774-99	SPRING		69	1-452-512-11	MAGNET	
59	A-1-426-590-11	COIL, DEMAGNETIZATION		70	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
60	4-365-808-01	SCREW (5), TAPPING		71	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
61	X-4030-224-1	PLATE ASSY, BOTTOM		72	*9-902-396-01	PW BOARD	
				73	9-902-397-01	SHEET, RUBBER	

A

SECTION 7
ELECTRICAL PARTS LIST

NOTE :

The components identified by shading and mark **A** are critical for safety.

Replace only with part number specified.

Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF: μ F, PF: μ F · MMH:mH, UH: μ H

RESISTORS

All resistors are in ohms
F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1296-910-A	A BOARD, COMPLETE	*****		C309	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
*4-341-751-01	EYELET			C310	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
*4-341-752-01	EYELET			C311	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
<CAPACITOR>				C312	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C101	1-126-233-11	ELECT 22MF	20% 50V	C313	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C102	1-126-103-11	ELECT 470MF	20% 16V	C314	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C103	1-136-165-00	FILM 0.1MF	5% 50V	C315	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C104	1-136-165-00	FILM 0.1MF	5% 50V	C316	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C105	1-126-103-11	ELECT 470MF	20% 16V	C317	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C106	1-126-233-11	ELECT 22MF	20% 50V	C318	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C107	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C319	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C108	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C320	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C109	1-124-910-11	ELECT 47MF	20% 50V	C321	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C111	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C322	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C112	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C323	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C113	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C324	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C114	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C325	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C115	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C326	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C116	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C327	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C117	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C328	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C118	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C329	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C119	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C330	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C120	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C331	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C121	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C332	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C122	1-124-910-11	ELECT 47MF	20% 50V	C333	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C123	1-130-479-00	MYLAR 0.0047MF	5% 50V	C334	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C124	1-126-233-11	ELECT 22MF	20% 50V	C335	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C125	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C336	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C126	1-124-910-11	ELECT 47MF	20% 50V	C337	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C127	1-124-903-11	ELECT 1MF	20% 50V	C338	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C128	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C339	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C129	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C340	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C130	1-130-479-00	MYLAR 0.0047MF	5% 50V	C341	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C131	1-124-910-11	ELECT 47MF	20% 50V	C342	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C132	1-124-910-11	ELECT 47MF	20% 50V	C343	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C133	1-136-161-00	FILM 0.047MF	5% 50V	C344	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C134	1-136-153-00	FILM 0.01MF	5% 50V	C345	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C135	1-136-153-00	FILM 0.01MF	5% 50V	C346	1-124-120-11	ELECT 220MF	20% 16V
C136	1-163-227-11	CERAMIC CHIP 10PF	5% 50V	C347	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C137	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C348	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C301	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C349	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C302	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C350	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C303	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C351	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C304	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C352	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C305	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C353	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C306	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C354	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C307	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C355	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C308	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C356	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
				C357	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
				C359	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C360	1-126-101-11	ELECT 100MF	20% 16V

Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
IC801	8-759-047-73	IC TDA8175				<RESISTOR>	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC801					
		<COIL>		JR1	1-216-296-00	METAL GLAZE	0 5% 1/8W
L101	1-408-413-00	INDUCTOR 22UH		JR2	1-216-295-00	METAL GLAZE	0 5% 1/10W
L102	1-408-426-00	INDUCTOR 270UH		JR3	1-216-295-00	METAL GLAZE	0 5% 1/10W
L103	1-408-403-00	INDUCTOR 3.3UH		JR4	1-216-296-00	METAL GLAZE	0 5% 1/8W
L104	1-408-399-00	INDUCTOR 1.5UH		JR5	1-216-295-00	METAL GLAZE	0 5% 1/10W
L105	1-408-408-00	INDUCTOR 8.2UH					
L106	1-408-410-00	INDUCTOR 12UH		JR6	1-216-296-00	METAL GLAZE	0 5% 1/8W
L301	1-408-413-00	INDUCTOR 22UH		JR7	1-216-295-00	METAL GLAZE	0 5% 1/10W
L302	1-408-417-00	INDUCTOR 47UH		JR11	1-216-296-00	METAL GLAZE	0 5% 1/8W
L303	1-543-813-21	FILTER, EMI		JR12	1-216-296-00	METAL GLAZE	0 5% 1/8W
L304	1-543-813-21	FILTER, EMI		JR16	1-216-296-00	METAL GLAZE	0 5% 1/8W
L305	1-543-813-21	FILTER, EMI					
L306	1-543-813-21	FILTER, EMI		JR17	1-216-296-00	METAL GLAZE	0 5% 1/8W
L307	1-543-813-21	FILTER, EMI		JR18	1-216-296-00	METAL GLAZE	0 5% 1/8W
L308	1-412-520-21	INDUCTOR 3.9UH		JR19	1-216-296-00	METAL GLAZE	0 5% 1/8W
L309	1-412-533-21	INDUCTOR 47UH		JR20	1-216-295-00	METAL GLAZE	0 5% 1/10W
L801	1-460-026-11	COIL, HORIZONTAL LINEARITY		JR23	1-216-296-00	METAL GLAZE	0 5% 1/8W
L803	1-407-365-00	COIL, CHOKE					
L804	1-412-530-11	INDUCTOR 27UH		JR24	1-216-296-00	METAL GLAZE	0 5% 1/8W
L805	1-407-500-00	INDUCTOR 4.7MMH		JR25	1-216-295-00	METAL GLAZE	0 5% 1/10W
		<TRANSISTOR>		JR26	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q101	8-729-903-30	TRANSISTOR DTC144TK		JR27	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q102	8-729-903-29	TRANSISTOR DTA144TK		JR28	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q103	8-729-901-59	TRANSISTOR BF199					
Q104	8-729-000-12	TRANSISTOR BF959		JR31	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR32	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR37	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR38	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR39	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q109	8-729-903-30	TRANSISTOR DTC144TK					
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR40	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q111	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR41	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q306	8-729-903-30	TRANSISTOR DTC144TK		JR42	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q307	8-729-119-77	TRANSISTOR 2SA1175-FEK		JR43	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q308	8-729-901-06	TRANSISTOR DTA144EK		JR44	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q309	8-729-903-30	TRANSISTOR DTC144TK					
Q310	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR45	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q311	8-729-230-46	TRANSISTOR 2SA1162-YG		JR46	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q314	8-729-902-99	TRANSISTOR DTC114TK		JR47	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q315	8-729-902-99	TRANSISTOR DTC114TK		JR48	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q316	8-729-902-99	TRANSISTOR DTC114TK		JR49	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q317	8-729-902-99	TRANSISTOR DTC114TK					
Q804	8-729-119-80	TRANSISTOR 2SC2688-LK		JR50	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q805	8-729-820-50	TRANSISTOR 2SA1016KFG		JR51	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q806	8-729-231-95	TRANSISTOR 2SD2089-LBSONY		JR52	1-216-295-00	METAL GLAZE	0 5% 1/10W
	4-382-854-11	SCREW (M3X10), P, SW (+); Q806		JR53	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q807	8-729-119-79	TRANSISTOR 2SC2785-FEK		JR54	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q808	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q809	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR55	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q810	8-729-230-46	TRANSISTOR 2SA1162-YG		JR56	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q811	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR57	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q813	8-729-119-79	TRANSISTOR 2SC2785-FEK		JR59	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q814	8-729-230-46	TRANSISTOR 2SA1162-YG		JR60	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q815	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q816	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR61	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q1031	8-729-902-99	TRANSISTOR DTC114TK		JR62	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q1032	8-729-902-99	TRANSISTOR DTC114TK		JR63	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR66	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR67	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR70	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR71	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR72	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR73	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR74	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR75	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR76	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR77	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR78	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR79	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR80	1-216-295-00	METAL GLAZE	0 5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
JR81	1-216-295-00	METAL GLAZE 0	5% 1/10W	R310	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR82	1-216-295-00	METAL GLAZE 0	5% 1/10W	R311	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR83	1-216-296-00	METAL GLAZE 0	5% 1/8W	R312	1-216-295-00	METAL GLAZE 0	5% 1/10W
JR85	1-216-296-00	METAL GLAZE 0	5% 1/8W	R313	1-216-073-00	METAL GLAZE 10K	5% 1/10W
JR86	1-216-295-00	METAL GLAZE 0	5% 1/10W	R314	1-216-073-00	METAL GLAZE 10K	5% 1/10W
JR87	1-216-296-00	METAL GLAZE 0	5% 1/8W	R315	1-216-089-00	METAL GLAZE 47K	5% 1/10W
JR88	1-216-296-00	METAL GLAZE 0	5% 1/8W	R317	1-216-033-00	METAL GLAZE 220	5% 1/10W
JR89	1-216-296-00	METAL GLAZE 0	5% 1/8W	R318	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR90	1-216-296-00	METAL GLAZE 0	5% 1/8W	R319	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR92	1-216-296-00	METAL GLAZE 0	5% 1/8W	R320	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR93	1-216-296-00	METAL GLAZE 0	5% 1/8W	R321	1-216-089-00	METAL GLAZE 47K	5% 1/10W
JR94	1-216-296-00	METAL GLAZE 0	5% 1/8W	R322	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR95	1-216-296-00	METAL GLAZE 0	5% 1/8W	R323	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R101	1-216-033-00	METAL GLAZE 220	5% 1/10W	R324	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R102	1-216-295-00	METAL GLAZE 0	5% 1/10W	R325	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R103	1-216-033-00	METAL GLAZE 220	5% 1/10W	R326	1-216-033-00	METAL GLAZE 220	5% 1/10W
R104	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R327	1-216-033-00	METAL GLAZE 220	5% 1/10W
R105	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R328	1-216-025-00	METAL GLAZE 100	5% 1/10W
R106	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R329	1-216-025-00	METAL GLAZE 100	5% 1/10W
R108	1-216-025-00	METAL GLAZE 100	5% 1/10W	R330	1-216-025-00	METAL GLAZE 100	5% 1/10W
R109	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R331	1-216-025-00	METAL GLAZE 100	5% 1/10W
R110	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R332	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R111	1-216-041-00	METAL GLAZE 470	5% 1/10W	R333	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R112	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R334	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R113	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R335	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R114	1-216-021-00	METAL GLAZE 68	5% 1/10W	R336	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R115	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R337	1-216-033-00	METAL GLAZE 220	5% 1/10W
R116	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R338	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R117	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W	R339	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R118	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R340	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R119	1-216-033-00	METAL GLAZE 220	5% 1/10W	R341	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R120	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R342	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R121	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R343	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R122	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R344	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R123	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R345	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R124	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R346	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R125	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R347	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R126	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R348	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R127	1-216-041-00	METAL GLAZE 470	5% 1/10W	R349	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R128	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R350	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R129	1-216-037-00	METAL GLAZE 330	5% 1/10W	R351	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R132	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R352	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R133	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R353	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R134	1-216-041-00	METAL GLAZE 470	5% 1/10W	R354	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R135	1-216-025-00	METAL GLAZE 100	5% 1/10W	R355	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R136	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R356	1-216-025-00	METAL GLAZE 100	5% 1/10W
R137	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R357	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R138	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R358	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R139	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R359	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R140	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R360	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R141	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R361	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R142	1-216-043-00	METAL GLAZE 560	5% 1/10W	R362	1-216-039-00	METAL GLAZE 390	5% 1/10W
R143	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R363	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R144	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R364	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R145	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R366	1-216-033-00	METAL GLAZE 220	5% 1/10W
R301	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R367	1-216-033-00	METAL GLAZE 220	5% 1/10W
R302	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R368	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R303	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R371	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R304	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R372	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R305	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R377	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R306	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R378	1-216-033-00	METAL GLAZE 220	5% 1/10W
R307	1-216-033-00	METAL GLAZE 220	5% 1/10W	R379	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R308	1-216-033-00	METAL GLAZE 220	5% 1/10W	R380	1-216-295-00	METAL GLAZE 0	5% 1/10W
R309	1-216-089-00	METAL GLAZE 47K	5% 1/10W				

A

G

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R381	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R825	1-249-449-11	CARBON	1.5 5% 1/4W F
R382	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R828	1-249-443-11	CARBON	0.47 5% 1/4W F
R383	1-216-033-00	METAL GLAZE	220 5% 1/10W	R831	1-216-037-00	METAL GLAZE	330 5% 1/10W
R384	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R833	1-215-897-11	METAL OXIDE	6.8K 5% 2W F
R388	1-216-025-00	METAL GLAZE	100 5% 1/10W	R834	1-215-901-00	METAL OXIDE	33K 5% 2W F
R389	1-216-025-00	METAL GLAZE	100 5% 1/10W	R835	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R390	1-216-025-00	METAL GLAZE	100 5% 1/10W	R836	1-216-352-11	METAL OXIDE	1.8 5% 1W F
R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R837	1-247-699-11	CARBON	82 5% 1/4W F
R392	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R838	1-249-448-11	CARBON	1.2 5% 1/4W F
R393	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R839	1-215-882-00	METAL OXIDE	22 5% 2W F
R394	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R840	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R395	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R841	1-215-449-00	METAL	15K 1% 1/4W
R396	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R842	1-215-455-00	METAL	27K 1% 1/4W
R397	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R843	1-216-430-11	METAL OXIDE	390 5% 1W F
R398	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R844	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R399	1-216-025-00	METAL GLAZE	100 5% 1/10W	R845	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R400	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R846	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R408	1-216-033-00	METAL GLAZE	220 5% 1/10W	R847	1-216-043-00	METAL GLAZE	560 5% 1/10W
R409	1-216-033-00	METAL GLAZE	220 5% 1/10W	R848	1-216-033-00	METAL GLAZE	220 5% 1/10W
R410	1-216-033-00	METAL GLAZE	220 5% 1/10W	R849	1-215-888-00	METAL OXIDE	220 5% 2W F
R411	1-216-033-00	METAL GLAZE	220 5% 1/10W	R850	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R412	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R851	1-249-400-11	CARBON	39 5% 1/4W
R413	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R852	1-215-473-00	METAL	150K 1% 1/4W
R414	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R853	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R415	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R854	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R416	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R855	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R417	1-216-025-00	METAL GLAZE	100 5% 1/10W	R857	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R418	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R858	1-249-437-11	CARBON	47K 5% 1/4W
R419	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R859	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R420	1-216-295-00	METAL GLAZE	0 5% 1/10W	R860	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R421	1-216-295-00	METAL GLAZE	0 5% 1/10W	<SWITCH>			
R422	1-216-073-00	METAL GLAZE	10K 5% 1/10W	SW301	1-571-532-21	SWITCH, TACTIL	
R423	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	<TRANSFORMER>			
R424	1-216-089-00	METAL GLAZE	47K 5% 1/10W	T101	1-404-806-11	COIL	
R426	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T801	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
R427	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T802 Δ 1-439-476-11	TRANSFORMER ASSY, FLYBACK		
R430	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T803	1-424-646-11	TRANSFORMER, FERRITE (H.PCT)	
R431	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<TUNER>			
R432	1-216-033-00	METAL GLAZE	220 5% 1/10W	TU101 Δ 1-465-301-11	TUNER, ET (UV-816(PLL))		
R433	1-216-033-00	METAL GLAZE	220 5% 1/10W	<IF BLOCK>			
R434	1-216-033-00	METAL GLAZE	220 5% 1/10W	VIF101	1-464-962-11	IF BLOCK (IFG-389FS)	
R435	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	<CRYSTAL>			
R436	1-216-073-00	METAL GLAZE	10K 5% 1/10W	X301	1-577-071-11	VIBRATOR, CERAMIC	
R437	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			
R438	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*A-1316-122-A	G BOARD, COMPLETE		
R439	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			
R440	1-216-033-00	METAL GLAZE	220 5% 1/10W	*4-341-751-01	EYELET (CN609)		
R441	1-216-033-00	METAL GLAZE	220 5% 1/10W	*4-341-752-01	EYELET (EY601,EY602)		
R442	1-216-049-00	METAL GLAZE	1K 5% 1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)		
R443	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R444	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R801	1-249-449-11	CARBON	1.5 5% 1/4W F				
R802	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R805	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R806	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R808	1-249-451-11	CARBON	2.2 5% 1/4W F				
R809	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R811	1-215-889-00	METAL OXIDE	330 5% 2W F				
R812	1-249-459-11	CARBON	12K 5% 1/4W F				
R813	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R817	1-216-373-11	METAL OXIDE	2.2 5% 2W F				
R819	1-216-442-00	METAL OXIDE	39K 5% 1W F				
R820	1-216-437-91	METAL OXIDE	5.6K 5% 1W F				
R824	1-247-716-11	CARBON	1.8K 5% 1/4W F				

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<CAPACITOR>							
C602	1-161-742-00	CERAMIC	0.0022MF 20% 400V	D622	8-719-510-48	DIODE D1N20R	
C603	1-162-130-11	CERAMIC	180PF 10% 2KV	D623	8-719-510-48	DIODE D1N20R	
C612	1-128-125-91	ELECT	180MF 20% 16V	D628	8-719-510-26	DIODE D1NL20	
C613	1-126-516-11	ELECT	120MF 20% 16V	D629	8-719-110-46	DIODE RD16ES-B3	
C614	1-124-786-11	ELECT	22MF 20% 35V	D651	8-719-510-26	DIODE D1NL20	
C615	1-126-777-51	ELECT	2200MF 20% 35V	D652	8-719-510-26	DIODE D1NL20	
C616	1-136-153-00	FILM	0.01MF 5% 50V	D653	8-719-510-26	DIODE D1NL20	
C617	1-136-153-00	FILM	0.01MF 5% 50V	D654	8-719-510-26	DIODE D1NL20	
C618	1-136-153-00	FILM	0.01MF 5% 50V	D655	8-719-109-88	DIODE RD5.6ES-B1	
C619	1-136-153-00	FILM	0.01MF 5% 50V	D661	8-719-510-13	DIODE D10SC4MR	
C620	1-137-189-11	FILM	0.18MF 5% 50V	4-382-854-11 SCREW (M3X10), P, SW (+); D661			
C621	1-137-189-11	FILM	0.18MF 5% 50V	D662	8-719-510-12	DIODE D10SC4M	
C622	1-137-189-11	FILM	0.18MF 5% 50V	D665	8-719-025-11	DIODE D8LC20UR	
C623	1-137-189-11	FILM	0.18MF 5% 50V	D666	8-719-025-10	DIODE D8LC20U	
C624	1-136-153-00	FILM	0.01MF 5% 50V	D671	8-719-110-46	DIODE RD16ES-B3	
C625	1-136-153-00	FILM	0.01MF 5% 50V	D672	8-719-510-26	DIODE D1NL20	
C626	1-137-572-21	FILM	0.056MF 5% 400V	D673	8-719-911-19	DIODE 1SS119	
C627	1-137-552-11	FILM	0.23MF 5% 42V	D674	8-719-510-48	DIODE D1N20R	
C628	1-124-126-00	ELECT	47MF 20% 25V	<FERRITE BEAD>			
C629	1-126-516-11	ELECT	120MF 20% 16V	FB601	1-412-911-11	INDUCTOR, FERRITE BEAD	
C630	1-128-102-11	ELECT	1200MF 20% 16V	FB602	1-412-911-11	INDUCTOR, FERRITE BEAD	
C631	1-126-376-11	ELECT	470MF 20% 25V	FB603	1-412-911-11	INDUCTOR, FERRITE BEAD	
C632	1-126-600-11	ELECT	100MF 20% 160V	FB604	1-412-911-11	INDUCTOR, FERRITE BEAD	
C633	1-124-122-11	ELECT	100MF 20% 25V	FB605	1-412-911-11	INDUCTOR, FERRITE BEAD	
C634	1-101-821-00	CERAMIC	0.0022MF 500V	FB606	1-412-911-11	INDUCTOR, FERRITE BEAD	
C635	1-136-161-00	FILM	0.047MF 5% 50V	FB607	1-412-911-11	INDUCTOR, FERRITE BEAD	
C636	1-102-038-00	CERAMIC	0.001MF 500V	FB608	1-412-911-11	INDUCTOR, FERRITE BEAD	
C637	1-126-516-11	ELECT	120MF 20% 16V	FB609	1-410-396-41	FERRITE BEAD INDUCTOR	
C638	1-123-379-00	ELECT	0.47MF 20% 50V	FB610	1-410-396-41	FERRITE BEAD INDUCTOR	
C639	1-136-165-00	FILM	0.1MF 5% 50V	FB611	1-543-194-00	CORE, BEAD	
C651	1-136-153-00	FILM	0.01MF 5% 50V	FB612	1-543-194-00	CORE, BEAD	
C661	1-164-644-11	CERAMIC	330PF 10% 500V	<IC>			
C662	1-136-129-00	FILM	0.3MF 5% 400V	IC601	8-759-604-39	IC M5F78M12L	
C663	1-162-130-11	CERAMIC	180PF 10% 2KV	4-382-854-01 SCREW (M3X8), P, SW (+); IC601			
C664	1-162-130-11	CERAMIC	180PF 10% 2KV	IC602	8-759-047-18	IC UPC2255H	
C665	1-136-170-00	FILM	0.27MF 5% 50V	IC603	8-749-921-99	IC SI-3120CA	
C667	1-136-170-00	FILM	0.27MF 5% 50V	4-382-854-01 SCREW (M3X8), P, SW (+); IC603			
C668	1-137-573-31	FILM	0.0047MF 5% 630V	IC604	1-809-703-11	MODULE, POWER DM-46	
C669	1-136-067-00	FILM	0.0036MF 3% 2KV	IC605	1-809-704-11	MODULE, POWER DM-45	
C670	1-128-125-91	ELECT	180MF 20% 16V	<COIL>			
<CONNECTOR>				L602	1-412-533-21	INDUCTOR 47UH	
CN604	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		<TRANSISTOR>			
CN605	*1-580-838-11	PIN, CONNECTOR (PC BOARD) 4P		Q601	8-729-010-85	TRANSISTOR 2SC4833	
CN606	*1-564-506-11	PLUG, CONNECTOR 3P		Q602	8-729-010-85	TRANSISTOR 2SC4833	
CN607	*1-564-511-11	PLUG, CONNECTOR 8P		Q603	8-729-011-74	TRANSISTOR 2SC4876	
CN608	*1-564-505-11	PLUG, CONNECTOR 2P		Q604	8-729-011-74	TRANSISTOR 2SC4876	
CN610	*1-564-507-11	PLUG, CONNECTOR 4P		Q605	8-729-011-74	TRANSISTOR 2SC4876	
CN611	*1-564-321-00	PIN, CONNECTOR 2P		Q606	8-729-011-74	TRANSISTOR 2SC4876	
<DIODE>				Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
D602	8-719-510-48	DIODE D1N20R		Q608	8-729-920-92	TRANSISTOR 2SD2096-EF	
D603	8-719-510-48	DIODE D1N20R		Q610	8-729-122-12	TRANSISTOR 2SA1221-L	
D604	8-719-510-48	DIODE D1N20R		Q611	8-729-920-92	TRANSISTOR 2SD2096-EF	
D615	8-719-911-19	DIODE 1SS119		Q671	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D616	8-719-510-48	DIODE D1N20R		Q672	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D617	8-719-510-48	DIODE D1N20R					
D618	8-719-510-48	DIODE D1N20R					
D619	8-719-510-48	DIODE D1N20R					
D620	8-719-510-48	DIODE D1N20R					
D621	8-719-510-48	DIODE D1N20R					

G

G1

C

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>				*****			
R603	1-215-859-00	METAL OXIDE	22 5% 1W F	*1-642-571-11	G1 BOARD		
R604	1-215-859-00	METAL OXIDE	22 5% 1W F	*****			
R605	1-202-844-00	SOLID	330K 10% 1/2W	*4-341-751-01	EYELET (EY690,EY691)		
R606	1-202-844-00	SOLID	330K 10% 1/2W				
R607	1-215-859-00	METAL OXIDE	22 5% 1W F	<CONNECTOR>			
R608	1-216-341-11	METAL OXIDE	0.22 5% 1W F	CN612	*1-564-517-11	PLUG, CONNECTOR 2P	
R609	1-216-341-11	METAL OXIDE	0.22 5% 1W F	<DIODE>			
R610	1-249-429-11	CARBON	10K 5% 1/4W	D691	8-719-911-19	DIODE 1SS119	
R611	1-249-429-11	CARBON	10K 5% 1/4W	<RELAY>			
R613	1-216-341-11	METAL OXIDE	0.22 5% 1W F	RY691	A 1-515-788-12	RELAY, POWER	
R614	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*****			
R615	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*A-1331-179-A	C BOARD, COMPLETE		
R616	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*****			
R617	1-216-354-11	METAL OXIDE	2.7 5% 1W F	<CAPACITOR>			
R618	1-216-347-11	METAL OXIDE	0.68 5% 1W F	C701	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R619	1-216-354-11	METAL OXIDE	2.7 5% 1W F	C702	1-163-134-00	CERAMIC CHIP 510PF	5% 50V
R620	1-216-354-11	METAL OXIDE	2.7 5% 1W F	C703	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R626	1-216-422-11	METAL OXIDE	18 5% 1W F	C704	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R627	1-249-425-11	CARBON	4.7K 5% 1/4W	C705	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R628	1-249-425-11	CARBON	4.7K 5% 1/4W	C706	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R629	1-249-413-11	CARBON	470 5% 1/4W F	C707	1-124-477-11	ELECT 47MF	20% 16V
R630	1-249-405-11	CARBON	100 5% 1/4W F	C708	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R631	1-249-405-11	CARBON	100 5% 1/4W F	C709	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R633	1-218-268-51	METAL	0.47 5% 1/2W	C710	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R634	1-218-268-51	METAL	0.47 5% 1/2W	C711	1-162-116-00	CERAMIC 680PF	10% 2KV
R635	1-249-394-11	CARBON	12 5% 1/4W F	C712	1-102-050-00	CERAMIC 0.01MF	500V
R636	1-249-405-11	CARBON	100 5% 1/4W F	C713	1-162-114-00	CERAMIC 0.0047MF	2KV
R637	1-216-422-11	METAL OXIDE	18 5% 1W F	C714	1-124-477-11	ELECT 47MF	20% 16V
R638	1-249-377-11	CARBON	0.47 5% 1/4W F	C715	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R639	1-249-422-11	CARBON	2.7K 5% 1/4W	C716	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R651	1-249-396-11	CARBON	18 5% 1/4W F	C717	1-126-233-11	ELECT 22MF	20% 50V
R652	1-249-421-11	CARBON	2.2K 5% 1/4W	C718	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R653	1-249-418-11	CARBON	1.2K 5% 1/4W	<CONNECTOR>			
R661	1-215-857-11	METAL OXIDE	10 5% 1W F	CN701	*1-564-509-11	PLUG, CONNECTOR 6P	
R671	1-249-424-11	CARBON	3.9K 5% 1/4W	CN702	*1-564-510-11	PLUG, CONNECTOR 7P	
R672	1-249-420-11	CARBON	1.8K 5% 1/4W	<DIODE>			
R673	1-249-418-11	CARBON	1.2K 5% 1/4W	D701	8-719-400-18	DIODE MA152WK	
R674	1-249-421-11	CARBON	2.2K 5% 1/4W	D702	8-719-400-18	DIODE MA152WK	
R675	1-249-424-11	CARBON	2.2K 5% 1/4W	D703	8-719-400-18	DIODE MA152WK	
R676	1-249-421-11	CARBON	2.2K 5% 1/4W	D704	8-719-400-18	DIODE MA152WK	
R677	1-249-429-11	CARBON	10K 5% 1/4W	D705	8-719-400-18	DIODE MA152WK	
R678	1-249-429-11	CARBON	10K 5% 1/4W	D706	8-719-400-18	DIODE MA152WK	
R679	1-249-424-11	CARBON	3.9K 5% 1/4W	D707	8-719-911-19	DIODE 1SS119	
R680	1-249-421-11	CARBON	2.2K 5% 1/4W	D708	8-719-911-19	DIODE 1SS119	
R681	1-217-418-00	FUSIBLE	0.47 10% 1/2W F	D709	8-719-911-19	DIODE 1SS119	
R682	1-249-399-11	CARBON	33 5% 1/4W F	<JACK>			
<RELAY>							
RY602	A 1-515-888-11	RELAY					
<TRANSFORMER>							
T603	A 1-424-647-11	TRANSFORMER, FERRITE (SBT-1B)					
T604	A 1-450-862-11	TRANSFORMER, CONVERTER (PRT1-B)					
T605	A 1-437-213-11	TRANSFORMER, CONVERTER DRIVE					
T606	A 1-450-861-11	TRANSFORMER, CONVERTER DRIVE					
<VARISTOR>							
VDR601	A 1-809-679-11	VARISTOR					
VDR602	A 1-809-678-11	VARISTOR					

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

C**H1****H2****H3****J1****J3****J4**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
J701	1-526-958-21	SOCKET, PICTURE TUBE				<DIODE>	
		<TRANSISTOR>		D401	8-719-907-87	DIODE PR5638S	
					4-035-418-01	HOLDER, LED; D401	
						<IC>	
Q701	8-729-230-49	TRANSISTOR 2SC2712-YG		IC401	8-749-900-36	IC BX-1393	
Q702	8-729-230-49	TRANSISTOR 2SC2712-YG				<RESISTOR>	
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG		R401	1-216-039-00	METAL GLAZE 390 5% 1/10W	
Q704	8-729-326-11	TRANSISTOR 2SC2611		R402	1-216-033-00	METAL GLAZE 220 5% 1/10W	
Q705	8-729-326-11	TRANSISTOR 2SC2611				*****	
Q706	8-729-326-11	TRANSISTOR 2SC2611			*1-641-500-11	H2 BOARD	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0				*****	
Q708	8-729-200-17	TRANSISTOR 2SA1091-0				<CONNECTOR>	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0		CN402	*1-564-517-11	PLUG, CONNECTOR 2P	
Q710	8-729-209-03	TRANSISTOR 2SC2551-R0				<SWITCH>	
Q711	8-729-230-46	TRANSISTOR 2SA1162-YG		SW401 A 1-554-937-21	SWITCH, KEY BOARD (POWER)		
		<RESISTOR>				*****	
R701	1-216-017-00	METAL GLAZE 47 5% 1/10W			*1-641-501-11	H3 BOARD	
R702	1-249-412-11	CARBON 390 5% 1/4W				*****	
R703	1-216-049-00	METAL GLAZE 1K 5% 1/10W				<CONNECTOR>	
R704	1-216-009-00	METAL GLAZE 22 5% 1/10W		CN403	*1-564-518-11	PLUG, CONNECTOR 3P	
R705	1-249-412-11	CARBON 390 5% 1/4W				<SWITCH>	
R706	1-216-049-00	METAL GLAZE 1K 5% 1/10W		SW402	1-554-937-11	SWITCH, KEY BOARD	
R707	1-216-017-00	METAL GLAZE 47 5% 1/10W				*****	
R708	1-249-412-11	CARBON 390 5% 1/4W			*1-641-502-11	J1 BOARD	
R709	1-249-417-11	CARBON 1K 5% 1/4W				*****	
R713	1-216-049-00	METAL GLAZE 1K 5% 1/10W			*1-641-505-11	J3 BOARD	
R715	1-216-049-00	METAL GLAZE 1K 5% 1/10W				*****	
R717	1-216-049-00	METAL GLAZE 1K 5% 1/10W			*1-641-506-12	J4 BOARD	
R718	1-216-463-00	METAL OXIDE 12K 5% 2W F				*****	
R719	1-216-463-00	METAL OXIDE 12K 5% 2W F				<CAPACITOR>	
R720	1-216-463-00	METAL OXIDE 12K 5% 2W F		C501	1-136-165-00	FILM 0.1MF 5% 50V	
R721	1-202-824-00	SOLID 3.3K 10% 1/2W		C502	1-136-165-00	FILM 0.1MF 5% 50V	
R722	1-202-824-00	SOLID 3.3K 10% 1/2W				<CONNECTOR>	
R723	1-202-824-00	SOLID 3.3K 10% 1/2W		CN502	*1-580-838-11	PIN, CONNECTOR (PC BOARD) 4P	
R724	1-202-842-11	SOLID 220K 10% 1/2W				<DIODE>	
R725	1-202-719-00	SOLID 1M 10% 1/2W		D501	8-719-912-51	DIODE ESAC25-04C	
R726	1-202-838-00	SOLID 100K 10% 1/2W					
R728	1-249-415-11	CARBON 680 5% 1/4W					
R729	1-249-433-11	CARBON 22K 5% 1/4W					
R730	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R731	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R732	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R733	1-249-423-11	CARBON 3.3K 5% 1/4W					
R734	1-216-043-00	METAL GLAZE 560 5% 1/10W					
R735	1-249-417-11	CARBON 1K 5% 1/4W					
R736	1-249-389-11	CARBON 4.7 5% 1/4W					
R737	1-249-438-11	CARBON 56K 5% 1/4W					

	*1-641-499-11	H1 BOARD					

		<CONNECTOR>					
CN401	*1-564-519-11	PLUG, CONNECTOR 4P					
		<COMPOSITION CIRCUIT BLOCK>					
CP401	1-232-680-11	COMPOSITION CIRCUIT BLOCK					

J4

J2

Y

The components identified by shading and mark Δ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D502	8-719-912-51	DIODE ESAC25-04C		R517	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
D503	8-719-931-35	DIODE EQB01-35		R518	1-216-172-00	METAL GLAZE 82 5% 1/8W	
<FUSE>				*****			
F501	Δ 1-532-279-11	FUSE, TIME LAG 0.5A/250V		*A-1394-338-A	Y BOARD, COMPLETE	*****	
	1-533-223-11	CLIP, FUSE; F501					
<COIL>				*4-341-751-01	EYELET (EY201~EY203, EY601, EY602, EY606, EY607, EY610, EY611, EY613, EY614, EY617~EY620, EY625~EY628, EY631, EY636)		
L501	1-424-648-11	TRANSFORMER, LINE FILTER (LFT)		*4-341-752-01	EYELET (EY615, EY616, EY629, EY630, EY632~EY635)		
<TRANSISTOR>				<CAPACITOR>			
Q501	8-729-206-05	TRANSISTOR 2SA1329-0		C201	1-124-557-11	ELECT 1000MF 20% 25V	
<RESISTOR>				C202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
R501	1-249-427-11	CARBON 6.8K 5% 1/4W		C203	1-124-557-11	ELECT 1000MF 20% 25V	
R502	1-249-409-11	CARBON 220 5% 1/4W		C204	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
R503	1-216-359-00	METAL OXIDE 6.8 5% 1W F		C205	1-124-477-11	ELECT 47MF 20% 16V	
R504	1-216-359-00	METAL OXIDE 6.8 5% 1W F		C206	1-124-477-11	ELECT 47MF 20% 16V	
*****				C208	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
*1-641-503-11	J2 BOARD	*****		C209	1-124-234-00	ELECT 22MF 20% 16V	
<CAPACITOR>				C210	1-136-165-00	FILM 0.1MF 5% 50V	
C510	1-124-477-11	ELECT 47MF 20% 16V		C211	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C511	1-124-477-11	ELECT 47MF 20% 16V		C212	1-136-165-00	FILM 0.1MF 5% 50V	
C512	1-124-477-11	ELECT 47MF 20% 16V		C213	1-124-903-11	ELECT 1MF 20% 50V	
C513	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		C214	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
C514	1-163-005-11	CERAMIC CHIP 470PF 10% 50V		C215	1-130-491-00	MYLAR 0.047MF 5% 50V	
<CONNECTOR>				C216	1-136-165-00	FILM 0.1MF 5% 50V	
CN501	*1-564-525-11	PLUG, CONNECTOR 10P		C217	1-102-114-00	CERAMIC 470PF 10% 50V	
<DIODE>				C218	1-102-114-00	CERAMIC 470PF 10% 50V	
D510	8-719-110-30	DIODE RD12ES-B1		C219	1-102-114-00	CERAMIC 470PF 10% 50V	
D511	8-719-110-30	DIODE RD12ES-B1		C220	1-124-119-00	ELECT 330MF 20% 16V	
D512	8-719-110-30	DIODE RD12ES-B1		C221	1-124-477-11	ELECT 47MF 20% 16V	
D513	8-719-110-30	DIODE RD12ES-B1		C222	1-126-160-11	ELECT 1MF 20% 50V	
<JACK>				C223	1-126-163-11	ELECT 4.7MF 20% 25V	
J510	1-562-837-21	JACK		C224	1-124-477-11	ELECT 47MF 20% 16V	
J511	1-565-666-12	TERMINAL, S 4P		C225	1-126-101-11	ELECT 100MF 20% 16V	
J512	1-563-500-21	JACK BLOCK, PIN (L TYPE) 2P		C227	1-126-233-11	ELECT 22MF 20% 50V	
<COIL>				C228	1-124-479-11	ELECT 330MF 20% 25V	
L510	1-408-397-00	INDUCTOR 1UH		C229	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
L511	1-408-409-00	INDUCTOR 10UH		C230	1-126-103-11	ELECT 470MF 20% 16V	
L512	1-408-409-00	INDUCTOR 10UH		C231	1-101-006-00	CERAMIC 0.047MF 50V	
<RESISTOR>				C232	1-101-006-00	CERAMIC 0.047MF 50V	
R510	1-247-741-11	CARBON 150 5% 1/2W		C233	1-101-006-00	CERAMIC 0.047MF 50V	
R511	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C234	1-124-477-11	ELECT 47MF 20% 16V	
R514	1-216-172-00	METAL GLAZE 82 5% 1/8W		C235	1-124-589-11	ELECT 47MF 20% 16V	
R515	1-249-404-00	CARBON 82 5% 1/4W		C601	Δ 1-136-360-51	FILM 0.22MF 20% 250V	
R516	1-216-077-00	METAL GLAZE 15K 5% 1/10W		C604	Δ 1-164-246-11	CERAMIC 0.0022MF 20% 400V	
<CONNECTOR>				C606	Δ 1-136-360-51	FILM 0.22MF 20% 250V	
CN10	1-561-534-00	SOCKET 21P		C607	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	
CN201	*1-564-515-11	PLUG, CONNECTOR 12P		C608	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	
CN202	*1-564-509-11	PLUG, CONNECTOR 6P		C609	Δ 1-162-578-51	CERAMIC 0.0047MF 20% 400V	
CN203	*1-564-510-11	PLUG, CONNECTOR 7P		C610	Δ 1-125-497-11	ELECT (BLOCK) 100MF 20% 400V	
				C611	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	

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Y

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
CN204	*1-564-513-11	PLUG, CONNECTOR 10P		R206	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
CN205	*1-564-505-11	PLUG, CONNECTOR 2P		R207	1-247-738-11	CARBON	82 5% 1/2W F
CN206	*1-564-506-11	PLUG, CONNECTOR 3P		R208	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
CN601	*1-580-843-11	PIN, CONNECTOR (POWER)		R209	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
CN602	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R210	1-216-105-00	METAL GLAZE	220K 5% 1/10W
CN603	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R211	1-216-295-00	METAL GLAZE	0 5% 1/10W
<DIODE>				R212	1-249-387-11	CARBON	3.3 5% 1/4W
D202	8-719-110-30	DIODE RD12ES-B1		R213	1-249-417-11	CARBON	1K 5% 1/4W
D203	8-719-110-13	DIODE RD9.1ES-B2		R214	1-249-438-11	CARBON	56K 5% 1/4W
D204	8-719-911-19	DIODE 1SS119		R215	1-249-404-00	CARBON	82 5% 1/4W
D205	8-719-109-85	DIODE RD5.1ES-B2		R216	1-249-404-00	CARBON	82 5% 1/4W
D206	8-719-110-30	DIODE RD12ES-B1		R218	1-249-404-00	CARBON	82 5% 1/4W
D207	8-719-110-30	DIODE RD12ES-B1		R219	1-249-404-00	CARBON	82 5% 1/4W
D208	8-719-110-30	DIODE RD12ES-B1		R220	1-249-403-11	CARBON	68 5% 1/4W
D209	8-719-110-30	DIODE RD12ES-B1		R221	1-216-033-00	METAL GLAZE	220 5% 1/10W
D210	8-719-110-30	DIODE RD12ES-B1		R222	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
D211	8-719-110-30	DIODE RD12ES-B1		R223	1-216-041-00	METAL GLAZE	470 5% 1/10W
D212	8-719-110-30	DIODE RD12ES-B1		R224	1-216-033-00	METAL GLAZE	220 5% 1/10W
D213	8-719-110-30	DIODE RD12ES-B1		R225	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
D214	8-719-911-19	DIODE 1SS119		R227	1-216-047-00	METAL GLAZE	820 5% 1/10W
D215	8-719-400-18	DIODE MA152WK		R228	1-216-089-00	METAL GLAZE	47K 5% 1/10W
D601	8-719-510-53	DIODE D4SB60L		R229	1-216-295-00	METAL GLAZE	0 5% 1/10W
<FUSE>				R230	1-216-023-00	METAL GLAZE	82 5% 1/10W
F601	1-576-230-11	FUSE (H.B.C.) 3 15A/250V		R231	1-216-295-00	METAL GLAZE	0 5% 1/10W
	1-533-223-11	CLIP, FUSE; F601		R232	1-216-033-00	METAL GLAZE	220 5% 1/10W
<FILTER>				R233	1-216-049-00	METAL GLAZE	1K 5% 1/10W
FL201	1-424-261-11	FILTER, SIGNAL LINE NOISE		R234	1-216-049-00	METAL GLAZE	1K 5% 1/10W
FL202	1-424-261-11	FILTER, SIGNAL LINE NOISE		R235	1-216-021-00	METAL GLAZE	68 5% 1/10W
FL203	1-424-261-11	FILTER, SIGNAL LINE NOISE		R236	1-249-417-11	CARBON	1K 5% 1/4W
FL204	1-424-261-11	FILTER, SIGNAL LINE NOISE		R237	1-249-417-11	CARBON	1K 5% 1/4W
FL205	1-424-261-11	FILTER, SIGNAL LINE NOISE		R238	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
FL206	1-424-261-11	FILTER, SIGNAL LINE NOISE		R239	1-216-085-00	METAL GLAZE	33K 5% 1/10W
<IC>				R240	1-216-033-00	METAL GLAZE	220 5% 1/10W
IC201	8-752-053-17	IC CXA1114P		R241	1-216-073-00	METAL GLAZE	10K 5% 1/10W
IC202	8-759-041-82	IC TDA1013B		R242	1-216-073-00	METAL GLAZE	10K 5% 1/10W
<COIL>				R244	1-216-073-00	METAL GLAZE	10K 5% 1/10W
L201	1-412-533-21	INDUCTOR 47UH		R245	1-216-073-00	METAL GLAZE	10K 5% 1/10W
<TRANSISTOR>				R246	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R247	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q203	8-729-230-46	TRANSISTOR 2SA1162-YG		R249	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R250	1-216-073-00	METAL GLAZE	10K 5% 1/10W
Q205	8-729-230-46	TRANSISTOR 2SA1162-YG		R251	1-216-089-00	METAL GLAZE	47K 5% 1/10W
Q206	8-729-119-79	TRANSISTOR 2SC2785-FEK		R252	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q207	8-729-230-46	TRANSISTOR 2SA1162-YG		R253	1-216-049-00	METAL GLAZE	1K 5% 1/10W
<RESISTOR>				R254	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR200	1-216-296-00	METAL GLAZE	0 5% 1/8W	R601	1-205-909-11	WIREWOUND	3.3 5% 10W F
R201	1-216-295-00	METAL GLAZE	0 5% 1/10W	R603	1-249-443-11	CARBON	0.47 5% 1/4W F
R202	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<RELAY>			
R204	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RY601	1-515-579-11	RELAY	
R205	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	<TRANSFORMER>			
<THERMISTOR>				T601	1-424-391-11	TRANSFORMER, LINE FILTER	
<THERMISTOR>				T602	1-424-391-11	TRANSFORMER, LINE FILTER	
<THERMISTOR>				THP601	1-806-165-12	THERMISTOR (POSITIVE)	

PW

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REF.NO.	PART NO.	DESCRIPTION	REMARK
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*9-902-396-01	PW BOARD	*****	
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9-902-398-01	SWITCH, TACTIL		
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MISCELLANEOUS

A1-426-590-11	COIL, DEMAGNETIZATION		
A1-451-354-11	DEFLECTION YOKE (Y11SLA)		
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ		
1-452-512-11	MAGNET		
1-466-678-11	SWITCH BLOCK		

J501 A1-540-054-11	INLET, AC		
1-561-530-00	CONNECTOR (DC POWER)		

SP901 1-544-187-11	SPEAKER		
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V901 A8-735-821-05	PICTURE TUBE (A27KGC10X)		
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ACCESSORIES AND PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
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1-501-397-41	ANTENNA, TELESCOPIC (AN-18G)	
A1-532-325-11	FUSE, TIME-LAG 6.3A/250V	
A1-690-827-11	CORD SET, POWER	
A1-690-828-11	CORD, DC POWER	
*3-704-301-01	BAG (STANDARD), PROTECTION	

3-754-681-11	MANUAL, INSTRUCTION	
*4-035-665-01	CUSHION (UPPER) (ASSY)	
*4-035-666-01	CUSHION (LOWER) (ASSY)	
*4-035-667-01	TRAY	
*4-035-675-01	INDIVIDUAL CARTON	

REMOTE COMMANDER

1-693-075-11	REMOTE COMMANDER (RM-818)	
9-900-029-01	COVER, BATTERY (FOR RM-818)	